

CA2ALQG
50H29
Nov 19/51
Vol 22

ALBERTA LEGISLATURE LIBRARY



3 3398 00206 7444



The Province of Alberta

PETROLEUM AND NATURAL GAS CONSERVATION BOARD

IN THE MATTER OF THE GAS RESOURCES PRESERVATION ACT

AND IN THE MATTER of a Joint Hearing to determine various questions
relating to the proposed Export of Natural Gas from the Province of Alberta.

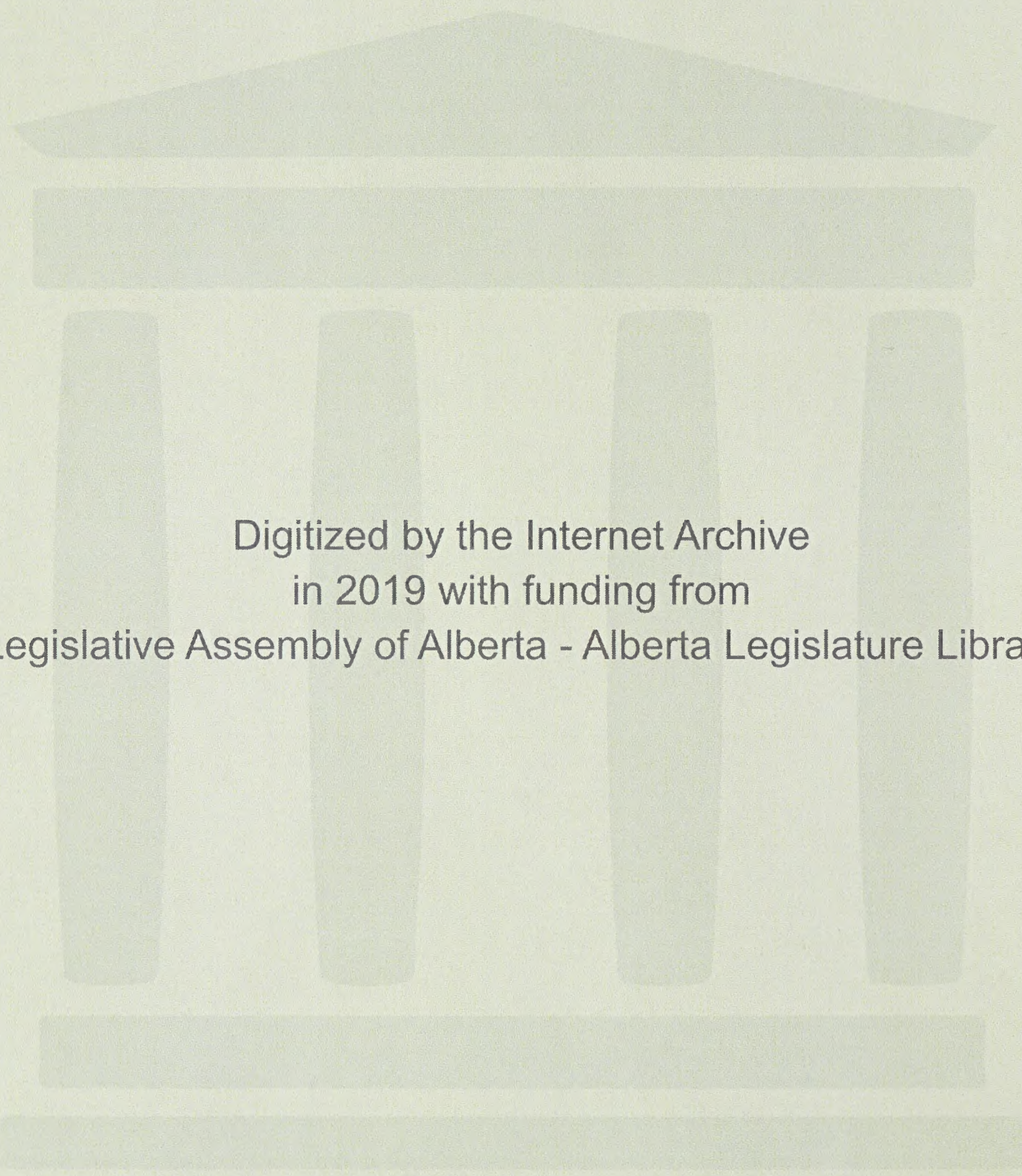
I. N. McKinnon Esq., Chairman

D. P. Goodall Esq.

Dr. G. W. Govier

Session: November 19th, 1951.

Volume 22.



Digitized by the Internet Archive
in 2019 with funding from
Legislative Assembly of Alberta - Alberta Legislature Library

I N D E X

VOLUME 22.

November 19th, 1951.

Page

Discussion re Adjournment 1874

W I T N E S S E S

ALBERT EDWARD GRAUER

Direct examination by Mr. Massie	1876
Cross-examination by Mr. S. B. Smith	1902
Cross-examination by Mr. McDonald	1913
Cross-examination by Mr. Martland	1918
Cross-examination by Mr. Milvain	1923
Cross-examination by Mr. S. B. Smith	1927
Cross-examination by Mr. C. E. Smith	1928
Examination by Dr. Govier	1930
Statement by H. A. MacLean	1932

H. ALAN MacLEAN

Examination by Mr. Goodall	1937
Statement by Dr. B. P. Sutherland	1938

DR. B. P. SUTHERLAND

Cross-examination by Mr. Milvain	1941
Examination by Dr. Govier	1949
Examination by The Chairman	1950
Cross-examination by Mr. McDonald	1951
Cross-examination by Mr. Nolan	1952

A FAISON DIXON

Direct examination by Mr. Nolan	1953
---------------------------------------	------

E X H I B I T S

59	Submission on behalf of B. C. Electric Company and other Distributors of Pacific Northwest,	1877
60	Submission of Consolidated Mining & Smelting Company of Canada Limited,	1938

1. The first part of the document is a list of references. The references are listed in a standard format, with the author's name, the title of the work, and the publisher. The references are as follows:

107-11

1. The first part of the document is a list of names and their corresponding addresses. The names are: John Doe, Jane Smith, and Bob Johnson. The addresses are: 123 Main St, 456 Elm St, and 789 Oak St.

EXHIBITS - Cont'd.

Page

- | | | |
|----|---|-------|
| 61 | Contract between Northwest Natural Gas Company and Canadian Gulf, | 1953 |
| 62 | Letter from California Standard to Northwest Natural Gas Company dated November 6, 1951 | 1956 |
| 63 | Letter from Britalta Petroleums Ltd. and Deep Rock Oil Corporation to A. Faison Dixon, dated November 10th, 1951, | 1957 |
| 64 | Letter from A. Jacobsen, President Amerada Petroleum Corporation to Northwest Natural Gas Company, dated August 21st, 1951, | 1958. |

.....

- 1. ...
- 2. ...
- 3. ...
- 4. ...

...

Discussion.

- 1874 -

VOLUME 22.

November 19th, 1951.

MR. C. E. SMITH: I wonder, Mr. Chairman, if I might bring something to your attention before we proceed with the ordinary business this morning. It has been suggested by counsel with respect particularly to the week of the 26th, I think it is, a week from today in any event, that some of the counsel are going to be tied up, if I may use that expression, in connection with what is known as the Borys case in the Appeal Court. If I understand it correctly, the Appeal Court has set definitely that week for the case, and there are some of the counsel here who are interested in that particular lawsuit. Furthermore, the Sheriff is in a bit of a quandary inasmuch as every court room in this building, as I understand it, is going to be occupied with sittings of the ordinary courts during that same week, including this room and all of the other court rooms. I think this might be a good opportunity for all counsel here to state their views to the Board. Probably the two who are the most interested, Mr. Steer and Mr. Nolan, as I understand it, they are going to be in an awkward position, having to be in the Appeal Court and before this Board, if this hearing has a place to sit. Possibly they could explain it, Mr. Chairman.

MR. STEER: Mr. Smith has explained the situation, as far as I am concerned, sir. There are weeks when it would be possible for either one of us to absent ourselves, but it does not look like next week is the week,

Mr. Smith:

Mr. Chairman:

I wonder, Mr. Chairman, if I might
bring something to your attention before we proceed with
the ordinary business of the morning. It has been suggested
by counsel with respect particularly to the week of the
20th, I think it is a week from today in any event, that
some of the counsel are going to be tied up, if I may say
that expression, in connection with what is known as the
Boyle case in the Appeal Court. If I understand it correctly,
the Appeal Court has set definitely that week for the case,
and there are some of the counsel here who are interested
in that particular lawsuit. Furthermore, the Sheriff is
in a bit of a predicament as every court room in this
building, as I understand it, is going to be occupied with
hearings of the ordinary courts during that same week, in-
cluding this room and all of the other court rooms. I
think this might be a real opportunity for all counsel here
to make their views to the Board. Probably the two who
are the most interested, Mr. Stier and Mr. Nolan, as I under-
stand they are, are going to be in an awkward position,
having to be in the Appeal Court and before this Board, if
this hearing is held at the same time. Possibly they could explain

Mr. Chairman:

Mr. Smith has explained the
situation, as far as I am concerned, sir. There are weeks
when it is difficult to get either one of us to attend,
consequently, that does not look like next week is the week.

Discussion.

- 1875 -

because the witnesses who are of the most importance, I think, to the client I represent, will probably be here next week.

MR. NOLAN: I was wondering, Mr. Chairman, in order to save some of the time that I am afraid is going to be lost, whether it would be possible to sit on Friday of this week, if that meets with the convenience of all the members of the Board.

THE CHAIRMAN: I am sorry, Mr. Nolan, we cannot sit on Friday. Do any other counsel wish to express their views?

MR. MARTLAND: I have no objection to the adjournment, sir.

MR. MILVAIN: I have none, sir.

MR. MACLEOD: I am entirely in the hands of the Board, sir.

MR. PORTER: No objection, sir.

MR. McDONALD: I was wondering, Mr. Chairman, if we could deal with that question at 11 o'clock, or at the end of the day. I would like to give some thought to it so that arrangements could be made on behalf of my client.

MR. S. B. SMITH: No objection, sir.

MR. PORTER: Well, Mr. Chairman, so far as my clients are concerned, the adjournment will be entirely satisfactory, in fact a very convenient one. Mr. Shattuck had to go back to Washington where his working papers are, and will be available for Thursday. However, two studies that are under way will not be complete until the end of next week, so that the adjournment actually suits our situation very nicely.

Digitized by the Internet Archive
in 2019 with funding from
Legislative Assembly of Alberta - Alberta Legislature Library

Discussion.

A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1876 -

THE CHAIRMAN:

THE CHAIRMAN: The Board will meet with counsel at the 11 o'clock adjournment to decide whether or how we will proceed the balance of this week, so that we will be sure that we will have all the time taken up, and we will arrange, as far as possible, what witnesses we will hear this week.

MR. PORTER:

MR. PORTER: Mr. Chairman, I will be unable to be at that meeting at 11 o'clock. Mr. Tolmie, who is with me, and a member of the Ontario Bar will be there.

MR. MARTLAND:

MR. MARTLAND: I wonder, sir, before we proceed, if I might place on record that there is in association with me and on behalf of Northern Natural Gas Company Mr. Justin Wolf, a member of the Bar of the District Court of the District of Columbia.

MR. MASSIE:

MR. MASSIE: Mr. Chairman, I am appearing on behalf of British Columbia Electric Company Limited and other gas distributors in the Pacific Northwest, and I understand that you have agreed to hear a submission I wish to make at this time. The submission will be presented by Mr. Grauer, President of the British Columbia Electric Company Limited. I will call Mr. Grauer.

• • • • •

ALBERT EDWARD GRAUER, having
been first duly sworn, examined by Mr. Massie, testified
as follows:-

Q Mr. Grauer, what is your position with the British Columbia Electric Company Limited?

A I am the President of the British Columbia Electric Company Limited.

1. The first part of the paper is devoted to a discussion of the general principles of the theory of the structure of the atom.

2. In the second part, we shall consider the question of the influence of the external magnetic field on the structure of the atom.

3. The third part of the paper is devoted to a discussion of the question of the influence of the external electric field on the structure of the atom.

4. In the fourth part, we shall consider the question of the influence of the external magnetic field on the structure of the atom.

5. The fifth part of the paper is devoted to a discussion of the question of the influence of the external electric field on the structure of the atom.

6. In the sixth part, we shall consider the question of the influence of the external magnetic field on the structure of the atom.

A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1877 -

Q And I understand that company, together with other gas distributors in the Pacific Northwest, has prepared a brief for submission and for presentation to this Board at this time?

A That is right.

Q Will you proceed with the presentation of the submission?

THE CHAIRMAN: Mr. Massie, that brief will be marked as exhibit number 59.

SUBMISSION ON BEHALF OF
B.C. ELECTRIC COMPANY AND
OTHER DISTRIBUTORS OF PACIFIC
NORTHWEST MARKED EXHIBIT 59.

Q MR. MASSIE: Mr. Grauer, will you proceed, please?

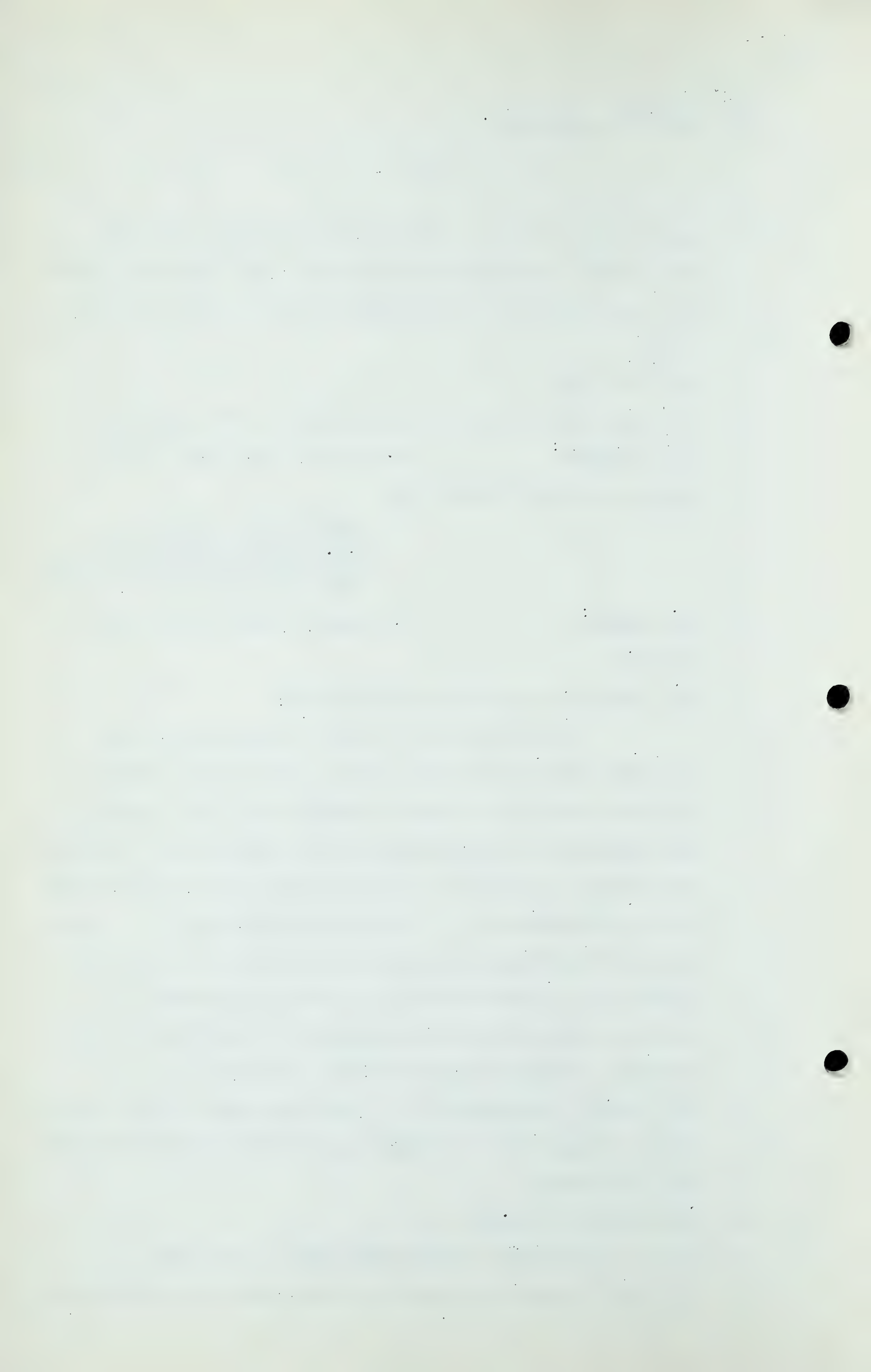
A Mr. Chairman, and members of the Board:

This submission is made on behalf of British Columbia Electric Company Limited, Seattle Gas Company, Portland Gas & Coke Company, Spokane Gas & Fuel Company, Bellingham Gas Company, Wenatchee Gas Company and Washington Gas & Electric Company, to whom we shall refer collectively as the "Distributors". One or more representatives of each of the Distributors have previously appeared as witnesses before you to give evidence as to markets on behalf of various applicants who seek permits to export gas from the Province of Alberta to the Pacific Northwest.

Q Mr. Grauer, I understand, if I may interrupt a moment, that those companies at the moment **are** distributing manufactured gas, are they?

A Yes, that is correct.

Q And if natural gas was made available to that area, are they the companies who would be distributing the natural gas?



A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1878 -

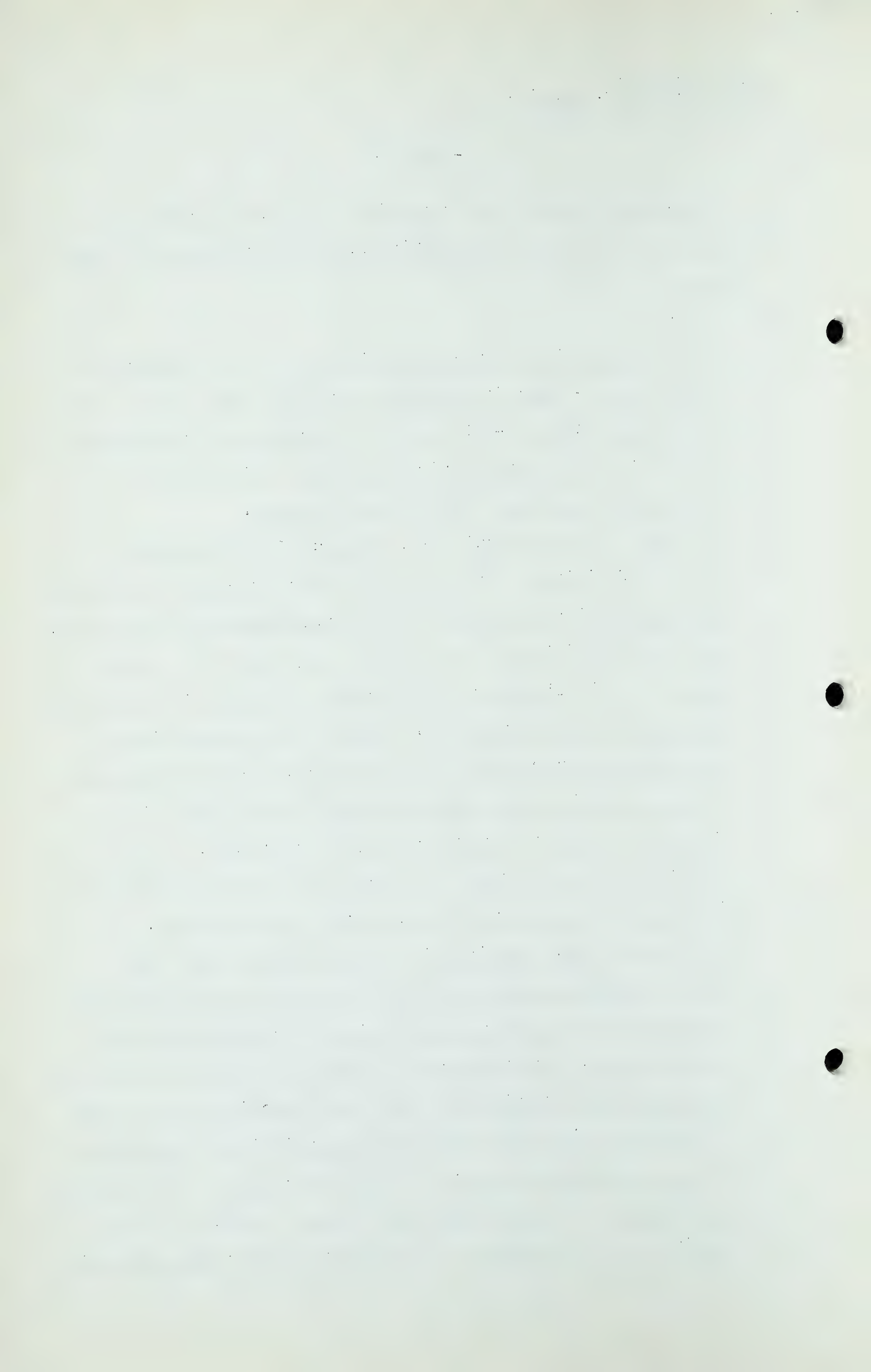
A Yes, these are the gas companies in the Pacific Northwest and they would be distributing natural gas wherever it came from.

Q Yes?

A The purpose of the present submission is to put before you reasons why - when it has been determined that there is an exportable surplus - the permit to export gas from Alberta should be to a company which proposes to pipe the gas to the Pacific Northwest rather than eastward.

Q If I may interrupt again, Mr. Grauer: Is the purpose of the brief limited to that extent, or do you propose to support the application of any particular applicant before the Board?

A No, this brief is not in support of any applicant before the Board. It is limited to the purposes expressed in the second paragraph of the submission. There is no organization of distributors or anything of that nature. Two of the distributing companies have signed contracts with a pipe line company. As far as my own company is concerned, we have adhered to a policy that was expressed at the beginning of interest in natural gas from Alberta. We have given, oh, many months ago, certainly it would be over a year ago, letters of intent to each of the companies to bring gas from Alberta to the lower mainland region of British Columbia. Our policy is, and it has been so stated to all the pipe line companies, that we will not enter into negotiations to sign a contract until this Board has brought in its findings and a permit has been issued to a pipe line company. That remains our policy. I want to make that clear. As far as this submission is concerned, the distributors are addressing this



A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1879 -

solely, addressing themselves solely to this question of gas going westward rather than eastward.

We shall develop our submission along the following lines:

1. The economies of Alberta and British Columbia are complementary to one another and the development of either one is therefore to the benefit of the other.

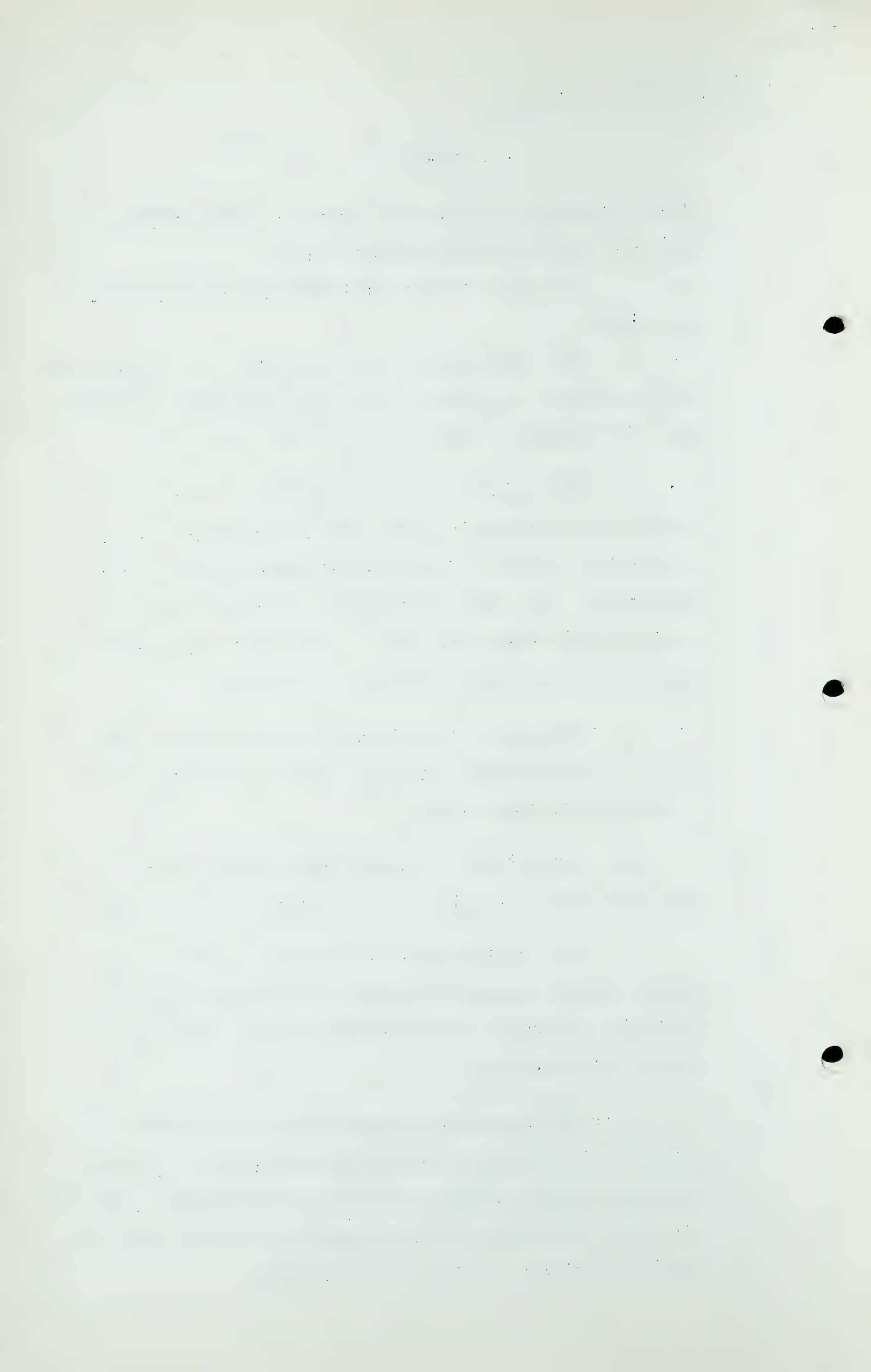
2. The market in British Columbia is not in itself sufficient to support a pipe line from Alberta; but fortunately it is a part of the fastest growing area - the Pacific Northwest - that it is practicable for Alberta gas to serve at the present time, and that is the market which Alberta should in its own interest seek to develop.

3. The Pacific Northwest is a heavy user of fuel oil, much of it for defence industry, and its supply of oil is vulnerable to enemy attack.

4. Steel from the United States might very well be available only for a pipe line to the Pacific Northwest.

5. It is no less in the interest of Alberta than of the rest of Canada and of the United States that all possible assistance should be given to the defence effort of the two countries.

6. The proposals to take natural gas eastward are not in the best interests of Alberta producers; are not, on their economic merits, equal to the proposal to take gas westward; and do not meet the same urgent demand from the defence point of view as a line westward.



A. E. Grauer,
Dir. ex. by Mr. Massie.

- 1880 -

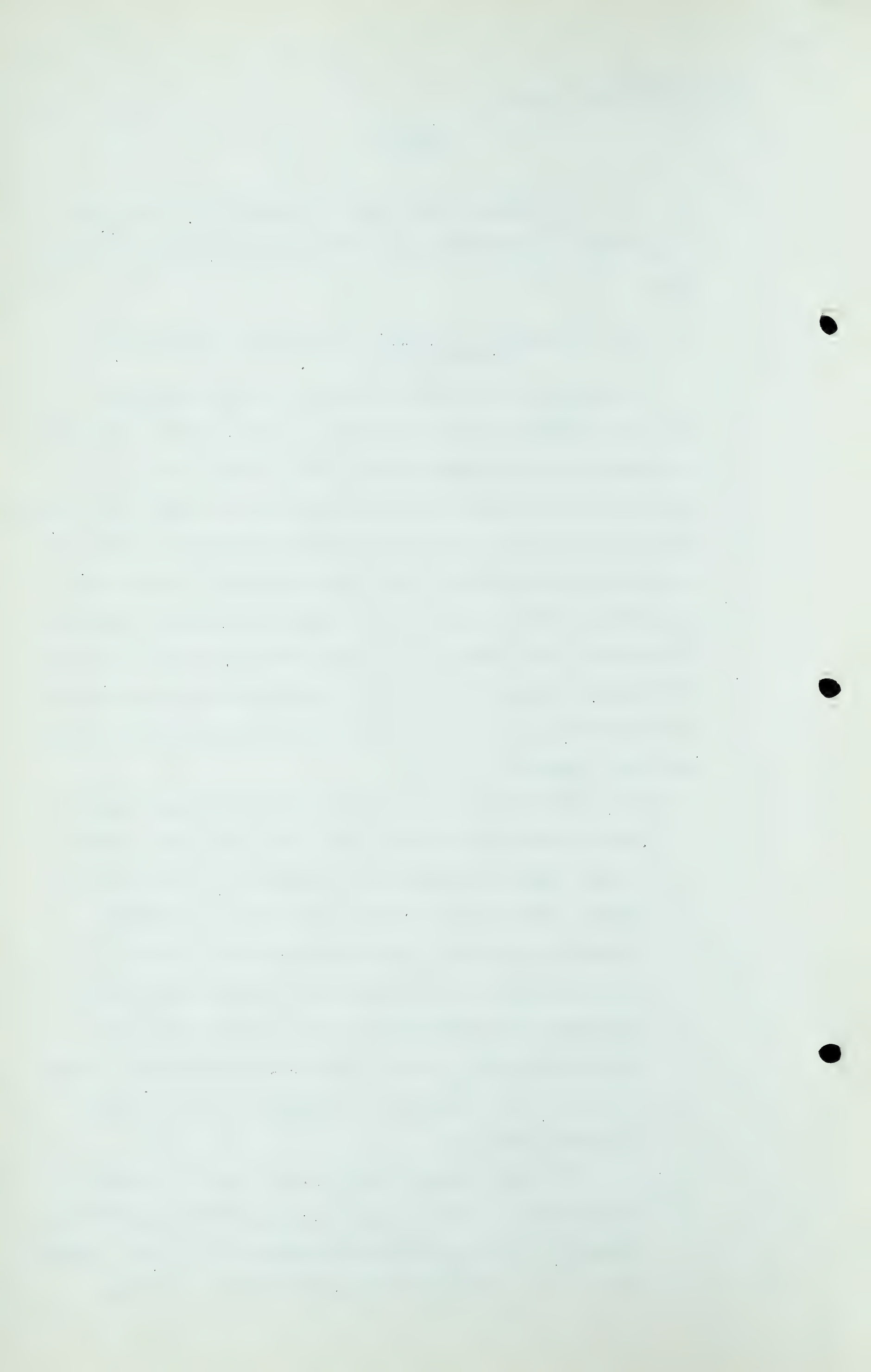
7. The Pacific Northwest can ensure for producers in Alberta a reasonable price and a strong market for their gas.

1. Economies of Alberta and British Columbia are Complementary.

Through Mr. R. S. Davidson, the British Columbia Electric Company Limited presented to the Dinning Commission a submission which demonstrated that it would be in the interests of Alberta to supply natural gas to British Columbia. In it the economics of the four western provinces were considered and statistical data were presented dealing with population, natural resources, industries, manufacturing and inter-provincial trade, and it was shown that the dissimilar economies of Alberta and British Columbia are complementary to each other. In the conclusion to the brief the following passage appeared:

" The economy of Alberta is primarily agricultural, and on this the manufacturing industries are largely based, supplemented by the production of non-metallic fuels. The economy of British Columbia is fundamentally forestry, fisheries and metallic minerals. In other words, the economies of Alberta and British Columbia are complementary to one another so that British Columbia offers Alberta the closest and therefore the best market for its agricultural and manufactured products.

Thus the interests of Alberta would be served by supporting the sale of natural gas to British Columbia because, as the population increases in British Columbia, so will the preferred market of the Alberta farmer



A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1881 -

"and manufacturer increase . . . "

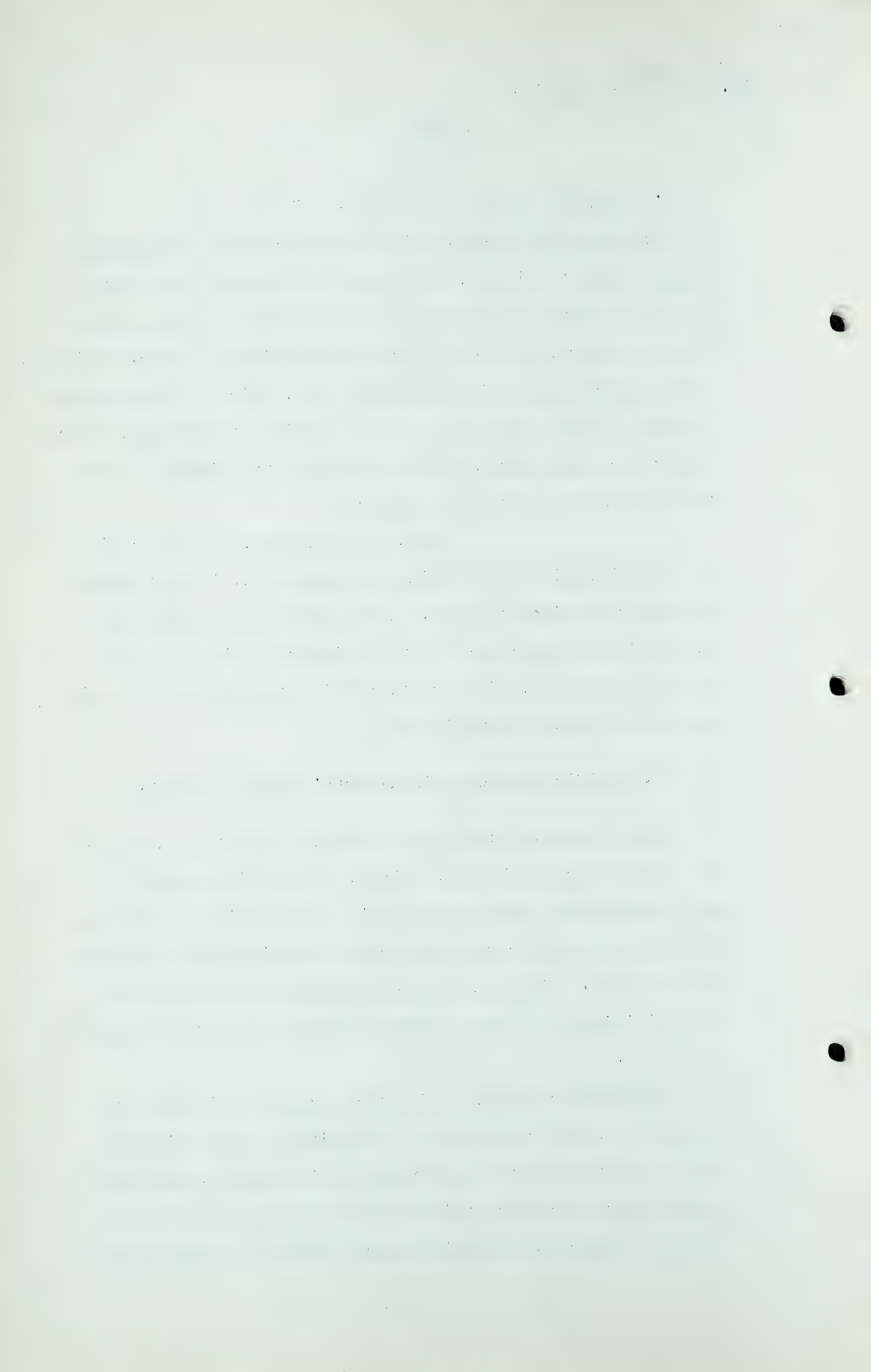
We shall not take up time at this hearing by quoting further from the brief, but respectfully refer the Board to it for details supporting our submission on this point. We also refer you to that part of the evidence of Mr. Davidson, given before you on 7th February, 1950, which is reported in Volume 9 of the transcript of the hearing of the application then before the Board, and extends from the middle of page 564 to near the bottom of page 566.

Now, Mr. Chairman, we have copies of the submission to the Dinning Commission, if that would be more convenient for you. I believe the more relevant parts of that report are in the evidence as indicated in the sentence I have just read, but if you should wish copies we would be glad to supply them.

2. Pacific Northwest is Alberta' Natural Market.

Alberta should seek as its primary market an area with two basic characteristics. First, an immediate market of good proportions, but one that will not require a pipe line of such size as to place too great a strain on her existing gas reserves. Second, a potential market of good growth possibilities to utilize further reserves of gas as they are developed.

The Pacific Northwest is such a market. It has now a population whose requirements are suited to the existing stage of development of gas reserves in Alberta, and with growth characteristics which should accommodate well the expanding exportable surplus which Alberta is expected to



A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1882 -

develop in the future.

The Pacific Northwest contains more than five million people now, of whom more than half might be expected to be served by a pipe line. It therefore provides a solid market without putting the pressure on Alberta reserves that larger eastern markets would. The Pacific Northwest's consumption during the first year of receiving natural gas is estimated to be about 35 billion cubic feet. By the end of the fifth year, or "development period", it is estimated to be upwards of seventy-five billion cubic feet annually. As it should not take longer than two years to build the pipe line, these consumption figures would apply, at the earliest, to the years beginning with 1954.

(Go to page 1883.)

A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1883 -

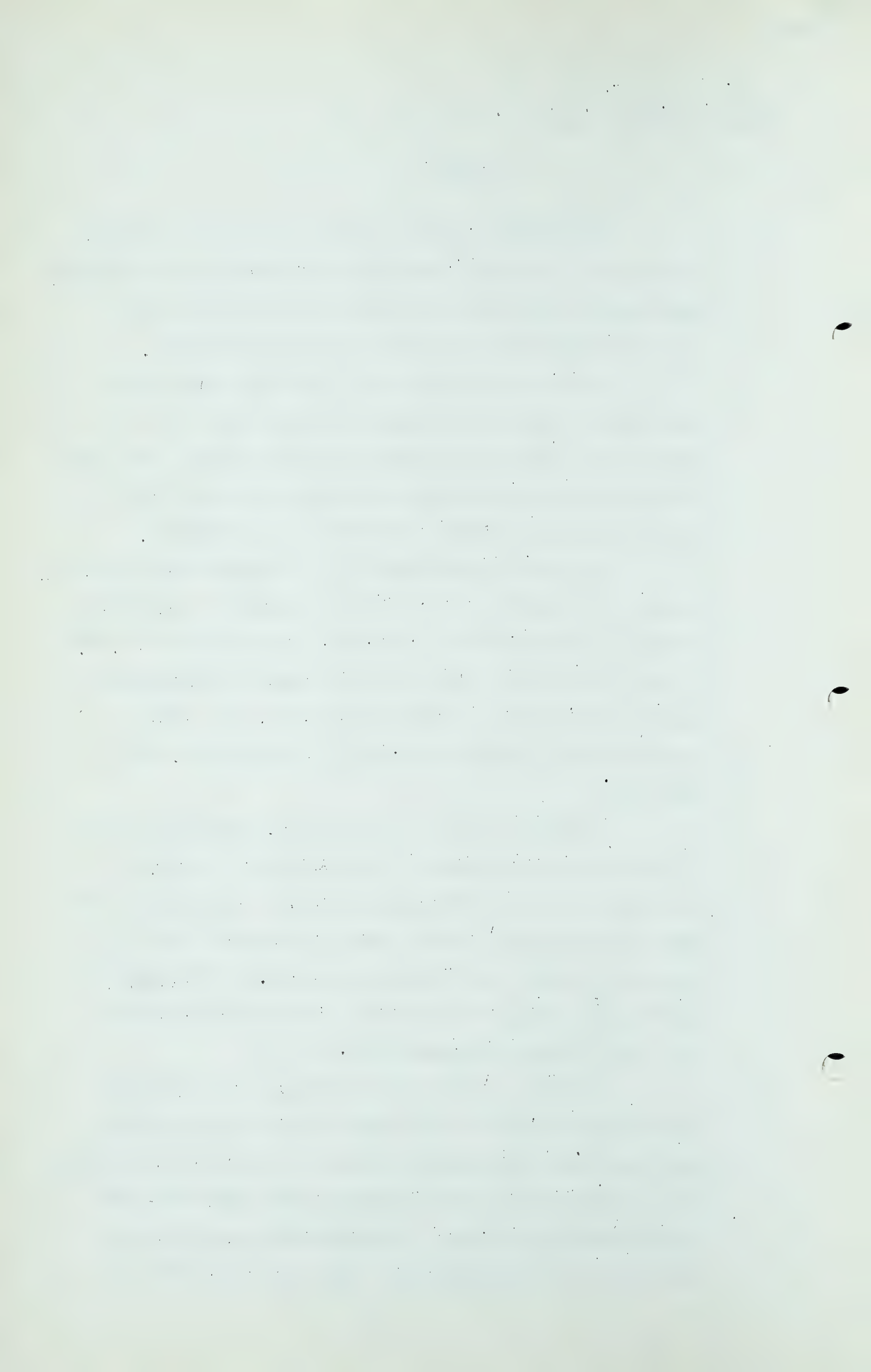
A We believe, from the above and from the evidence submitted to the Board, that the requirements of the Pacific Coast market could safely be met with full protection to the future security of internal supply for Alberta.

But, like the two sides of a coin, Alberta is concerned not only with an export market that is not too big for her present established reserves but also one that has characteristics of growth that would parallel the expected future development of Alberta's gas reserves.

The Pacific Northwest has precisely such characteristics. From 1940 to 1950, British Columbia's population increased from 805,000 to 1,138,000, an increase of 41.4%. In 1940 the combined population of Oregon and Washington was 2,825,875, while in 1950 it was 3,900,304, which represented an increase of 39.6% in Oregon and 37.0% in Washington.

Another reason why the Pacific Northwest should be Alberta's primary market is that Alberta's position there will be better than anywhere else. Other areas that might be served with Alberta gas might equally well or better be served by gas from other sources. For example, the Williston Basin and Texas are both nearer to Toronto and to Minneapolis than Alberta is.

Further, if Alberta were to gain a foothold in the Ontario market, its gain might prove to be nothing more than that. Extensive exploration is now being carried on in Saskatchewan and Manitoba and some important discoveries have been made. If substantial reserves were developed in those provinces, they would inevitably be



A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1884 -

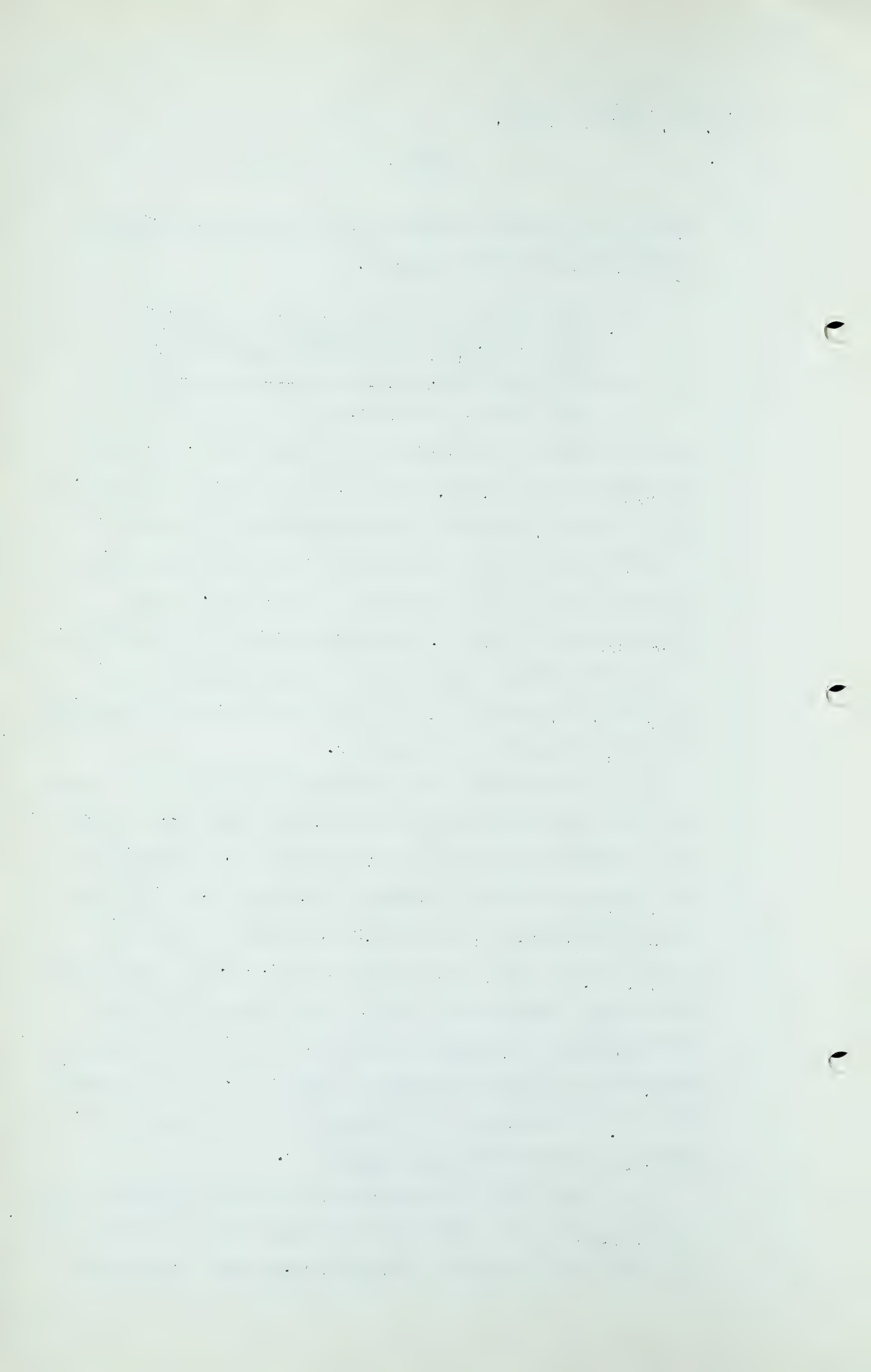
drawn on by eastern Canada in preference to reserves in Alberta that are more distant.

3. Use of Fuel Oil and Electricity in Pacific Northwest, and the Importance of Natural Gas to the Pacific Northwest from a Defence Point of View.

In 1940 the total fuel oil and distillate consumed in British Columbia was 4,877,922 bbls. The 1950 consumption was 9,776,676 bbls., or an increase of 100.4% in ten years. While in 1950 the population of British Columbia was 8.2% of the population of Canada, its consumption of distillate and fuel oil was 17.1% of the consumption of Canada. With the exception of comparatively small quantities brought into the eastern part of the province from Alberta, all the fuel oil consumed in British Columbia is imported by tanker.

In 1946 the total distillate and fuel oil consumed in Oregon and Washington was 39,805,000 bbls., and by 1949 the amount had grown to 42,446,000 bbls. The increase in distillate or diesel consumption, as such, has been even more significant: from 12,287,000 barrels in 1946 to 17,558,000 in 1949 - an increase of 43%. While Oregon and Washington comprise only 2.5% of the population of the United States, they used in 1949, 5% of the total national consumption of residual fuel oil and 5.3% of the distillate oil. Practically all oil consumed in those states is brought from California by tanker.

Much of the industry in the Pacific Northwest is concerned with the production of things which are necessary or essential to national defence. About half the present



A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1885 -

production of aluminum in the United States comes from reduction plants now in operation there. Other industries in the Pacific Northwest are devoted to the production of atomic energy, lead, zinc, copper, tin, calcium carbide, silicon carbide, ferro alloys, magnesium and lumber, and to aeroplane manufacturing, shipping and ship building and repair. Among them are the great Boeing aeroplane plant in Seattle, the Naval Base at Bremerton, where the largest naval vessels can be repaired and restored to service, the drydock at Esquimalt and the huge mining and smelting operations at Trail and Kimberley. The last named is the largest producer of lead and zinc in the world and the largest industrial plant in Western Canada.

All these industries use fuel oil to some degree and many of them use it exclusively for their basic heat requirements.

It has already been stated that nearly all the oil consumed in the Pacific Northwest is brought in by sea. This method of supply is highly vulnerable in time of war. The region was compelled to adjust itself to restricted deliveries during World War II because of the voracious demand for oil for other purposes and because of attacks on tankers by enemy submarines.

It may be observed in passing that these considerations support an oil pipe line to the Pacific Coast from Alberta as well as a gas pipe line. The question of an oil pipe line is not relevant to these hearings, but, so that there may be no misunderstanding about our position, we believe that the Pacific Northwest is a natural market for Alberta oil as well as for her gas.

A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1886 -

As matters stand, then, the economy of the whole region would be disrupted and most of its defence production and industrial activity would come to a full stop, if the supply of fuel oil were cut off for any appreciable time by interference with tanker shipments. Not least serious for the area, which is dependent upon manufactured gas in Vancouver, Seattle and Portland and the other centers would be the interruption of this supply and the fact that gas service to industrial and other customers, including homes, stores, restaurants and hospitals, could not be restored for many days after such a stoppage.

In an interview this year in Portland, Lieutenant-General Albert C. Wedemeyer, then Commanding General of the 6th Army, pointed out that coastal states, especially those in the northwest, are vulnerable to enemy attacks - which could take the form of direct destructive action by air, naval attacks, or sabotage on a large scale.

The Pacific Northwest is also a heavy user of electrical energy in its industries, and electrical installations, particularly power houses, make good targets for hostile attack from the air.

It is officially recognized that a power shortage exists in the United States part of the Pacific Northwest which will not be remedied for several years. Natural gas would greatly relieve this problem by releasing many thousands of kilowatts of electric power and millions of kilowatt hours of electric energy. The Bonneville Power Administration estimates that the introduction of natural gas into Oregon and Washington in 1953-54 would relieve the

A. E. Grauer,
Dir. Ex. by Mr. Massie. .

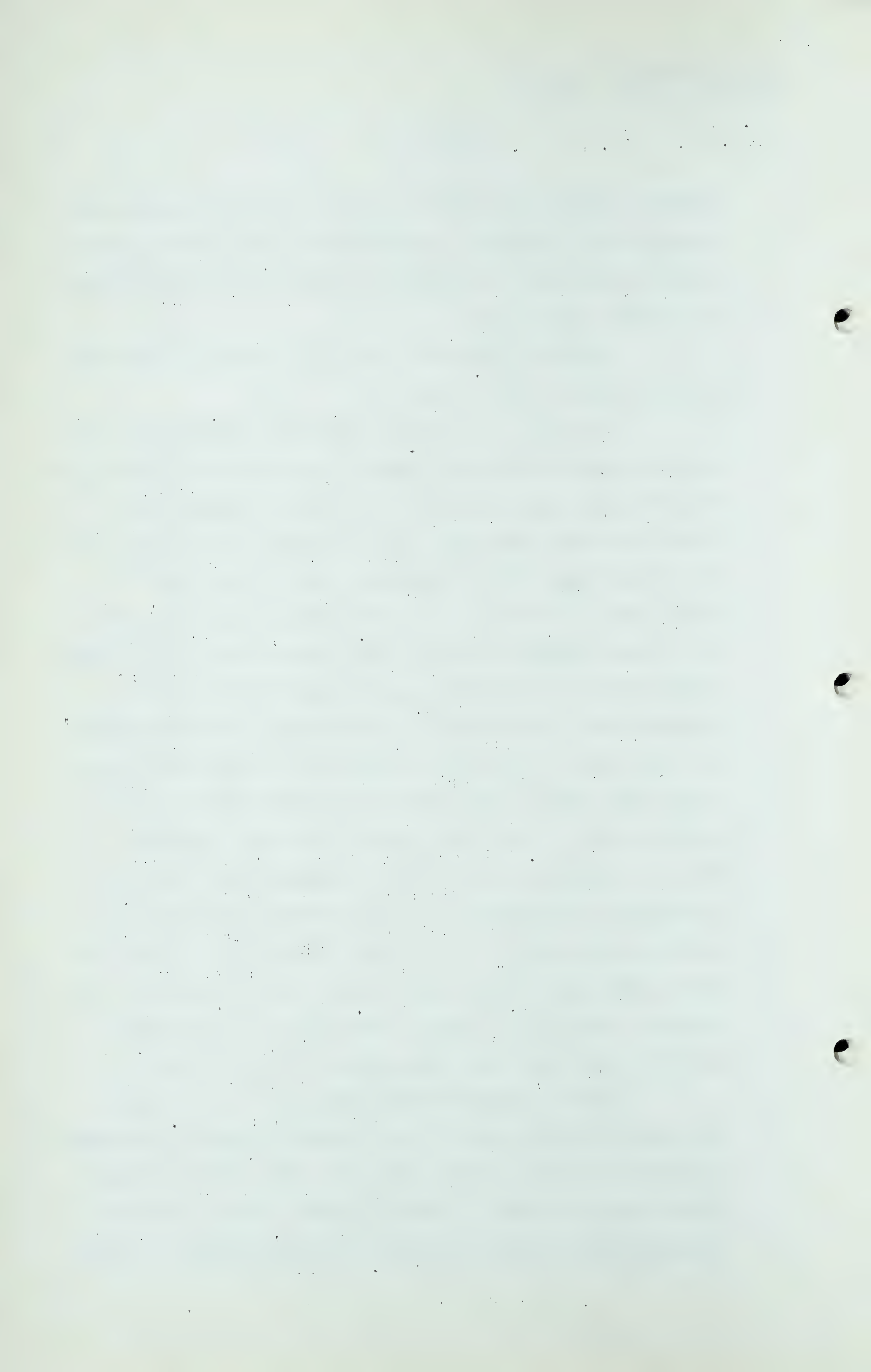
- 1887 -

electric load to the extent of about 150,000 kilowatts in domestic and commercial establishments. This energy would then be available for industrial purposes, including those of defence industries.

Defence industries would, of course, be important direct users of natural gas.

It might be suggested that the construction of an oil pipe line from Alberta would be a satisfactory substitute from the point of view of defence for an adequate supply of natural gas for industrial and residential purposes, but this is not the case, for two reasons. First, the crude oil would have to be refined and refineries on the coast would be primary targets. Second, after the oil had been refined, transportation facilities would be required to move the products from the refineries to consumers. If the proposed oil line were to terminate in Vancouver without continuing across the border, this problem of transportation from a defence point of view would become even more important. What is required in the Pacific Northwest from a defence viewpoint is an alternate fuel distributed below ground instead of by water, rail or road. This is not to say that an oil pipe line to the coast is not highly desirable. As already indicated, we believe that there is an economic need for both a gas pipe line and an oil pipe line.

More persuasive than anything we can say as to the need for natural gas in the Pacific Northwest for defence purposes is a letter dated 11th May, 1951, from the United States Munition Board to Bruce K. Brown, Deputy Petroleum Administrator, of which a copy is attached hereto. I think



A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1888 -

I had better read the whole letter. It is attached at the end.

"

MUNITIONS BOARD

Department of Defense

Washington

May 11, 1951.

MBIIP

Honorable Bruce K. Brown,
Deputy Petroleum Administrator,
Petroleum Administration for Defense,
Department of the Interior.

Dear Mr. Brown,-

Reference is made to our recent correspondence relative to the urgent need for the U.S. Pacific Northwest for natural gas supplies. It appears that Canadian opposition to export of natural gas has lessened since the Government of Alberta recently agreed to permit natural gas to be piped to aid mining and smelting operations in Montana.

The Pacific Northwest, being short of electric power and having very limited fuel resources, obtains oil from California and coal from Utah, Montana and Wyoming. The oil is brought in from California largely by tankers which might be cut off in time of emergency, and the coal involves long mountainous rail haulage. Gas would relieve new space heating and domestic water heating loads from the electric systems and reduce the use of coal. Gas from Canada would also conserve the use of fuel oil which would then be available for more urgent uses. An assured supply of fuel seems essential for maximum safety, defense expan-

A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1889 -

"sion, and the future industrial growth of the Pacific Northwest,

The proposed gas lines from Alberta would supply various United States and Canadian cities and strategic facilities along the route of the West Coast and would greatly increase the industrial mobilization potential of the area. From the viewpoint of this Office, the export of natural gas from Alberta is essential to the defence preparedness of both the U.S. and Canada. It is recommended, therefore, that through appropriate channels, further representations be made to the Canadian government relative to the importance to our mutual defense of permitting natural gas to be exported to the entire U.S. Pacific Northwest.

Sincerely yours,

(Signed) W. P. VAN ATTEN

Vice Chairman,
Internation Programs.

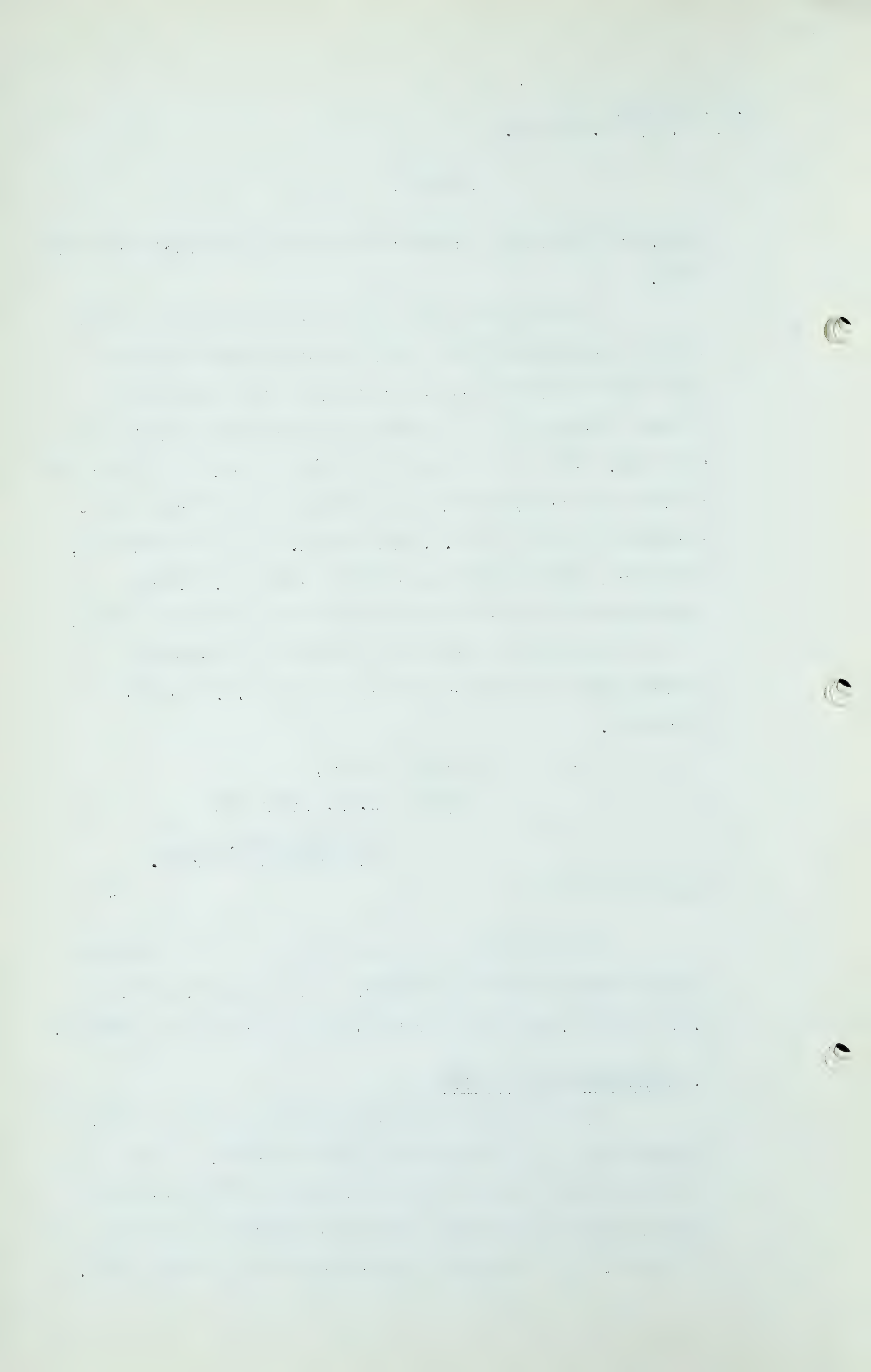
MBIIP 20860 72120

"

Permission to reproduce this letter was granted by the Munition Board's telegram of 31st August, 1951, to C.H. Gueffroy, President of the Portland Gas & Coke Company.

4. AVAILABILITY OF STEEL

Pipe of the sizes required for any large transmission line must come from the United States. It is common knowledge that steel is presently in very critical supply, and we understand that the condition is expected to continue to a somewhat lesser degree for several years.



A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1890 -

Pipe lines are large users of steel and it must not be assumed that steel will be automatically forthcoming for any pipe line project. Alternative projects are bound to be scrutinized closely both for the amount of steel involved (size and distance of line) and for the defence needs of the area to which it is proposed to take gas. It is apparent that a pipe line from Alberta to the Pacific Northwest meets these two tests in a way that no other proposal does.

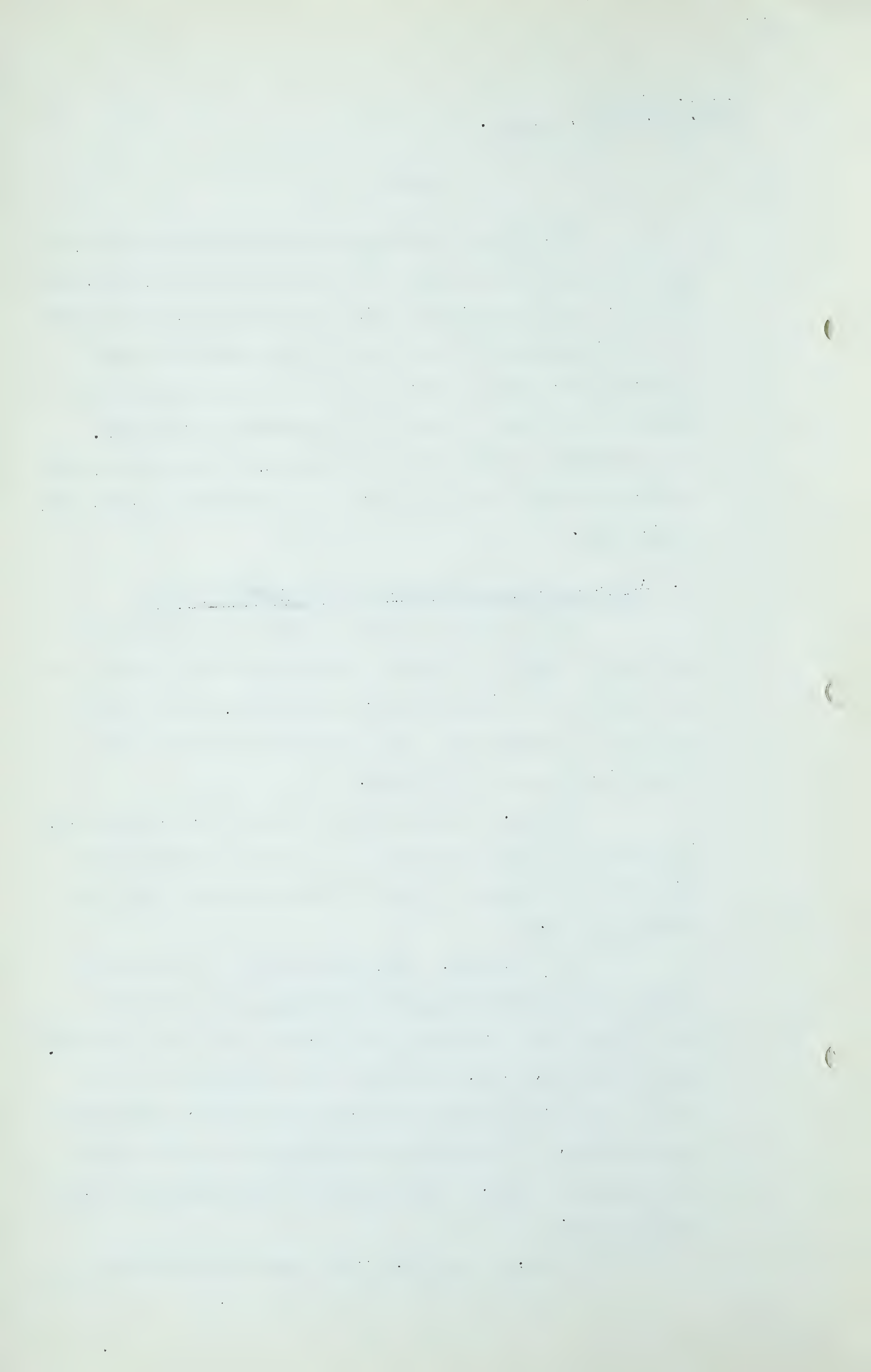
5. ALL ARE INTERESTED IN THE JOINT DEFENCE EFFORT

It is perhaps trite to observe that Canada and the United States are equally interested in the defence of every part of the North American Continent, and of course Alberta's interest is no less vital than that of every other province and every state.

However, as the period of the defence crisis precipitated by Korea lengthens, it is wise to refresh our memories by reference to the official statement on joint defence policy.

On 12th April, 1949, the "Joint United States-Canada Industrial Mobilization Planning Committee" was established to co-ordinate the efforts of the two countries. On 26th October, 1950, pursuant to an exchange of notes between the Secretary of State and the Canadian Ambassador at Washington, a Statement of Principles for Economic Co-operation was issued. The statement expressed this basic understanding:

"It is agreed, therefore, that our two governments



A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1891 -

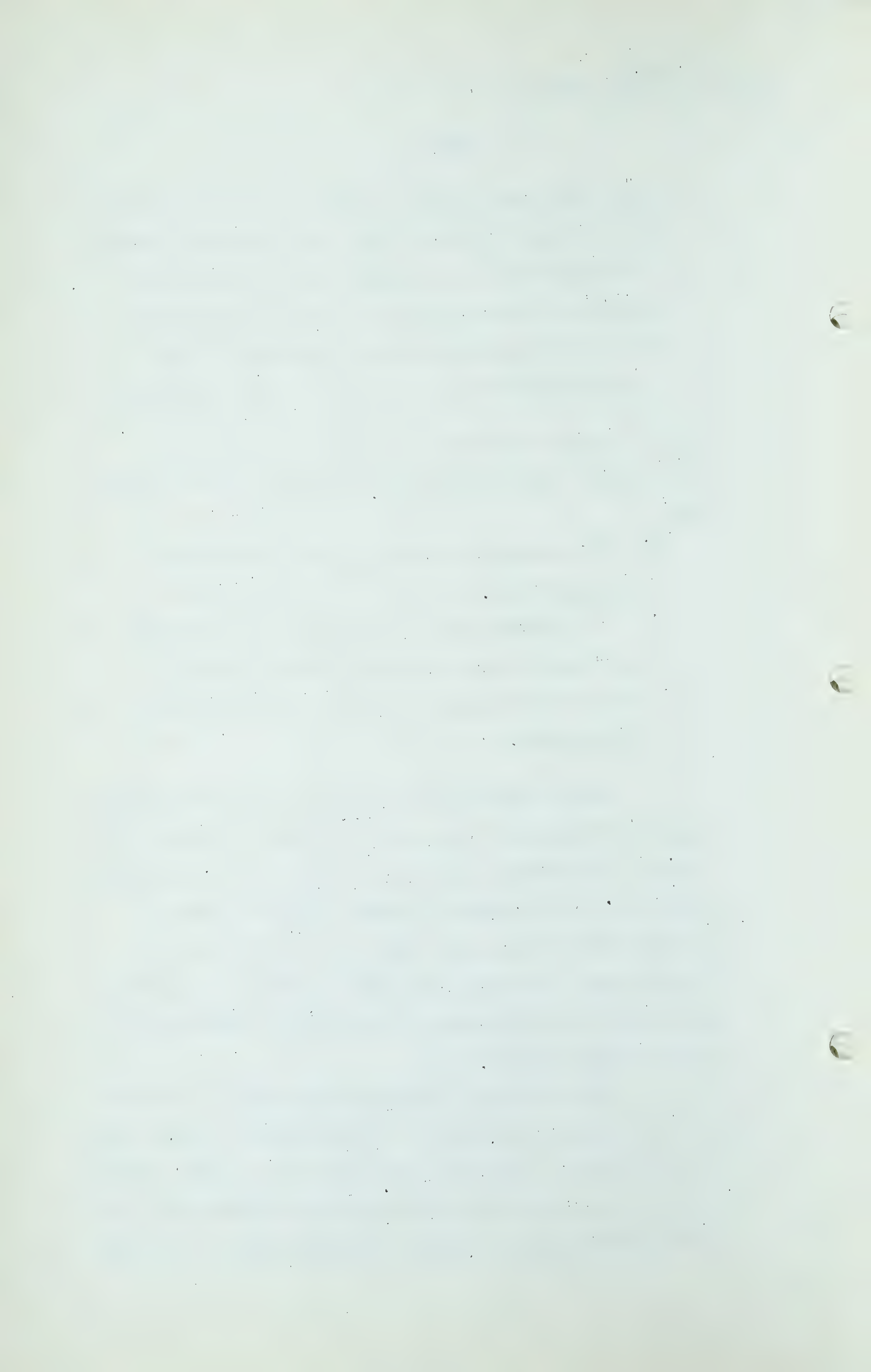
"shall co-operate in all respects practicable, and to the extent of their respective executive powers, to the end that the economic efforts of the two countries be co-ordinated for the common defence and that the production and resources of both countries be used for the best combined results."

Six principles were established "For the purpose of facilitating these objectives". Included among the six were:

- "2. Co-ordinated controls of the distribution of raw materials.
5. The removal as far as possible of 'barriers which impede the flow between Canada and the United States of goods essential for the common defence effort'. "

Since this Statement of Principles was issued numerous actions have been taken pursuant to them. For example, the National Production Authority has issued its Regulation No. 3, whereby Canadian manufacturers are accorded all the benefits available to United States manufacturers under the priorities system, and similar privileges are conferred on United States manufacturers under Canadian regulations.

The effect of these agreements and actions is, for all practical purposes, to integrate the economic and defence efforts of the two countries. As we have already shown, a gas pipe line to the Pacific Northwest will have particularly valuable results, with the use of a minimum



A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1892 -

amount of critical materials, both for defence against potential enemy attack and for greater economic output.

6. THE PROPOSALS TO TAKE NATURAL GAS EASTWARD.

As contrasted with Alberta gas going west to the Pacific Coast, two proposals are before the Board to take gas east; one, to Ontario via the Great Laurentian Shield; the other, to Minnesota via Winnipeg.

Let us examine the Ontario proposal first, the so-called "all Canadian route". The length of this line, together with the unusually difficult terrain it must traverse across the Great Laurentian Shield, makes it feasible from a cost point of view, if at all, only by the transmission of unusually large quantities of gas. From the point of view of gas reserves in Alberta, the proposal is therefore probably premature. It is unlikely that a sufficient exportable surplus exists at this stage to accommodate the requirements of such a pipe line.

Aside from the question of supply is that of price. Even if an adequate supply of natural gas existed, the unit cost of Alberta gas laid down in Toronto would be considerably higher than the unit cost laid down in Vancouver. The pipe line would create sterile cost, which the producer and consumer would have to bear. In short, at this stage, piping Alberta gas to Ontario would be an uneconomic use of Alberta gas.

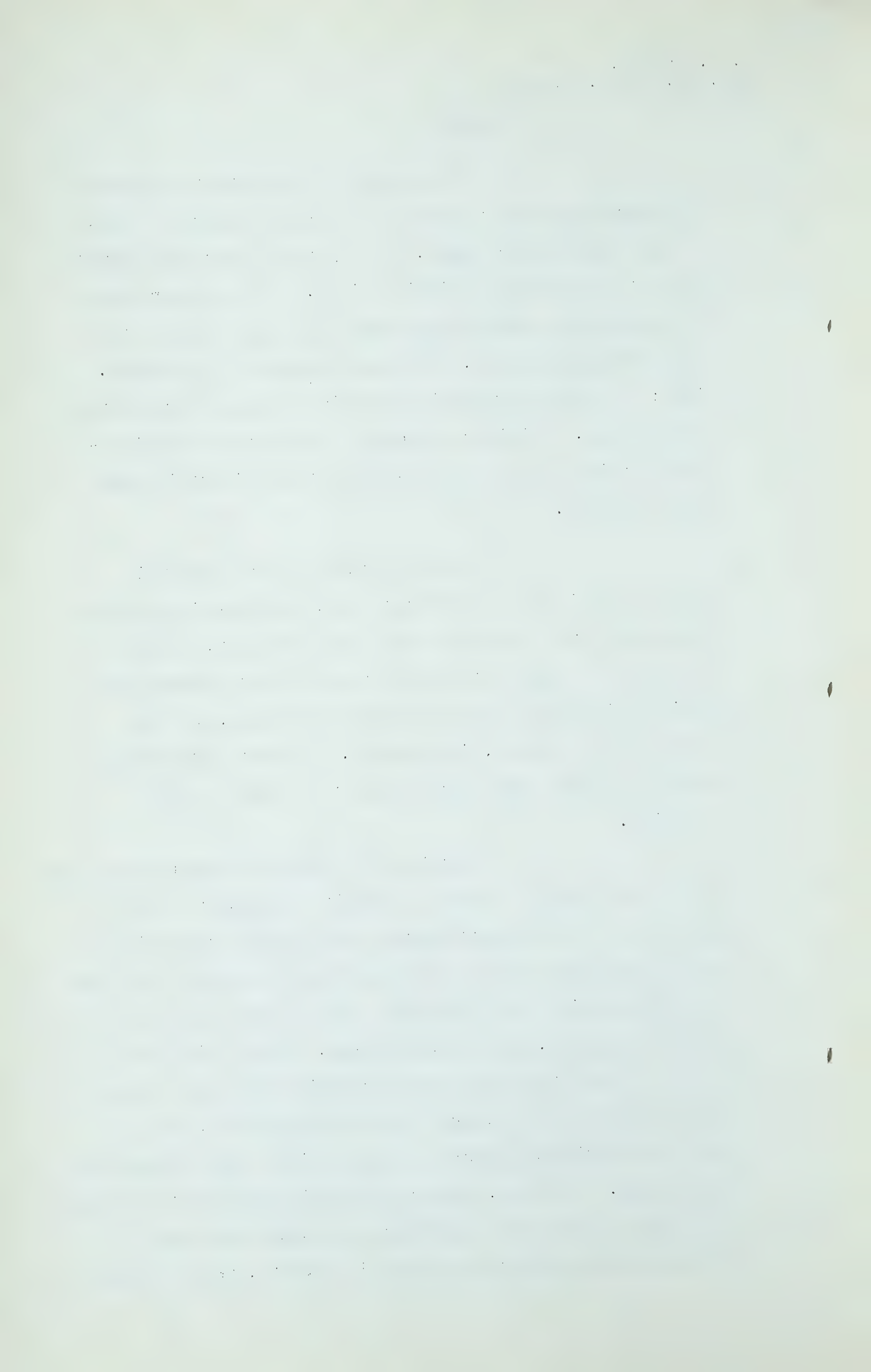
A. E. Grauer,
Dir. Ex. by Mr. Massie

-1893 -

The natural development of export for Alberta gas would be from the centre outwards. This is what happened in Texas, for instance, where the markets close to Texas were satisfied first. The New York area did not receive natural gas until this year through the Transcontinental line, which was completed in December, 1950; while New England is still in the process of getting natural gas. Similar geographic and economic considerations point to the Pacific Northwest as Alberta's first export market.

There is all the more reason in Canada than in the United States why the long jump to the industrial east should not be taken hurriedly, because in Canada the huge intervening area of Saskatchewan and Manitoba is itself known to have natural gas, and the only question now is, "How much?". A large exploration program has now commenced to find the answer to this question.

Surely it is ordinary common sense both for Alberta and for Ontario to await the answer to that question. If the Saskatchewan and Manitoba gas fields prove to be major ones, then Ontario and towns en route can be supplied with more reasonably priced gas because of the shorter distance. By the same token, Alberta will save having its gas tied up to an uneconomic pipe line. Under these circumstances Alberta could, if it wished, find a large new additional market on the Pacific Coast by serving California. However, should the passing years not develop important gas fields in Manitoba and Saskatchewan but disclose tremendous gas reserves in Alberta, akin to those



A. E. Grauer,
Dir.Ex. by Mr. Massie.

• -1894 -

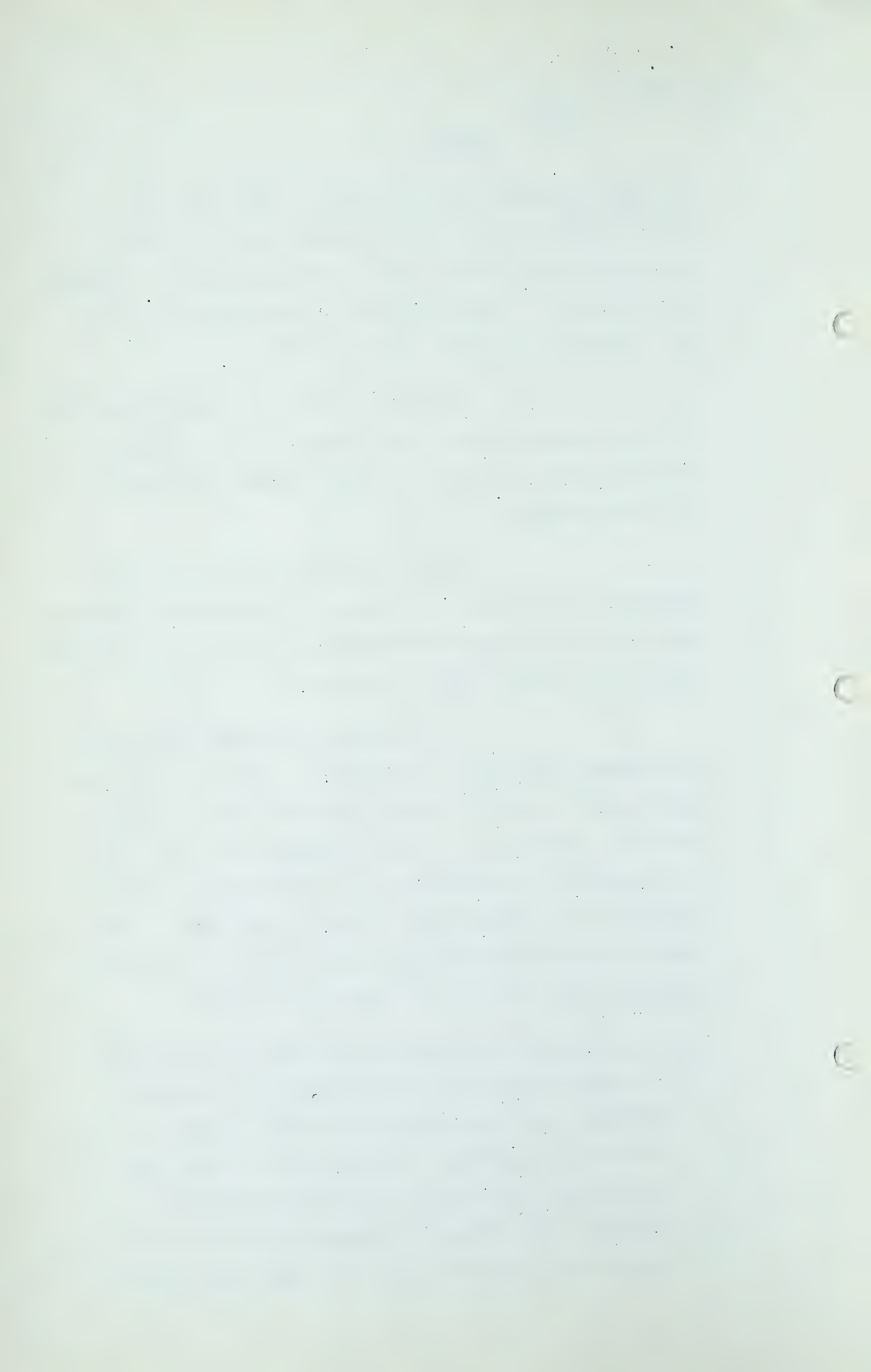
of Texas, that would be the time to supply distant markets like those of eastern Canada either directly or by supplementing Manitoba and Saskatchewan gas. A relatively few years, in short, may mean a tremendous change in the economics of natural gas for Ontario.

Ontario could also be greatly affected from the American side of the border, if the rapidly developing Williston Basin of North Dakota lives up to its early promise.

Faced with inescapable facts of geography and economics, advocates of the presently proposed Ontario route have advanced arguments more likely to inflame the emotions than to appeal to reason.

The Board has been told that reasons for sending Alberta gas eastward are: "Alberta first and Canada next"; and "No export unless and until Canada's needs are satisfied or it can be demonstrated that they are incapable of satisfaction." (At the hearing on 26th September, 1951, Transcript, Volume 10, page 853.) We submit that your Board will not give effect in its recommendations to any such slogan, for several reasons:

- (1) They are vague generalizations which are meaningless in any precise sense and are, therefore, capable of being used in different ways for the purpose of special pleading. For instance, in the sense used before this Board, they seem to identify "Canada" with "Ontario". Western Canada has borne many burdens for the benefit of industrial Ontario



A. E. Grauer,
Dir. Ex. by Mr. Massie

- 1895 -

and Quebec, notably the long period of years of tariff protection that still continues. Surely a British Columbian can legitimately object to the suggestion that a far western resource has to be piped all the way to Ontario before "Canada" benefits. About 70% of the population of British Columbia will be served by a pipe line to British Columbia and we submit that this closest big Canadian market to Alberta cannot be swept aside by any loose generalization about "Canada."

- (2) The slogans are directly contrary to the formal defence production understanding reached by Canada and the United States and set out above.
- (3) The second slogan is, and the first slogan if carried any distance would be contrary to all sound economic reasoning, particularly for a trading nation such as Canada. Because it has developed an unusually large volume of international trade based largely on the exchange of primary products for secondary products, Canada has achieved the highest standard of living for its citizens of any nation in the world, with the single exception of the United States. If it were now to apply the concept that no raw materials or goods should be exported until all its own citizens' requirements had been saturated, its foreign trade would grind to a halt in short order, its standard of living would fall sharply and its cost of living would rise precipitously.

A.E.Grauer,
Dir. Ex. by Mr. Massie

- 1896 -

- (4) If either slogan purported to represent government policy at the time it was first stated, it should be applied only after review at government level.

The second proposal for taking gas eastward, would pipe it to Winnipeg and thence south to the region surrounding Minneapolis and St. Paul.

This proposal, too, suffers in comparison with the Pacific Coast.

In the first place, the Minneapolis-St. Paul area is already served with natural gas from within the United States, and there is, therefore, not the virgin market that exists in the Pacific Northwest. From the point of view of the producer, the Pacific Northwest market is therefore much to be preferred.

Second, the general need for natural gas in the Pacific Northwest is obviously much greater than in Minnesota, which is presently being supplied. Further, no convincing evidence has been submitted to this Board, either that there is a current pressing need for additional natural gas in Minnesota, or, if so, that the additional requirements cannot also be met from within the United States

Third, there is nowhere near the urgency for natural gas in Minnesota from a joint defence production point of view that there is in the Pacific Northwest. The critical situation in the Pacific Northwest, as recognised by defence production authorities, has already been covered in this submission. By contrast, the Minnesota area has secure supplies of oil, natural gas,

A. E. Grauer,
Dir. Ex. by Mr. Massie

- 1897 -

coal and electricity while, industrially, it does not have the concentration of defence industries, ranging from nuclear fission plant to aircraft and ship-building plants, that the Pacific Northwest has. From the vital defence production viewpoint, therefore, it is much more important both for Canada and the United States that Alberta natural gas go to the Pacific Northwest rather than to Minnesota.

Fourth, from a purely Canadian point of view, it befits national policy that Alberta natural gas should go to the Pacific Northwest rather than to Minnesota in the United States. Both proposals serve areas in the United States as well as in Canada. But the industry of Washington and Oregon on the Pacific Coast is not competitive with established industrial areas in Canada, while that of Minnesota and adjoining areas is actually or potentially competitive with Ontario and Quebec. For example, it has been suggested that Alberta gas would give a new lease on life to the Mesabi Range, where the bulk of the iron ore that is left is of relatively low grade. (Transcript, 28th September, 1950, Volume 4, pages 382-2). But in Canada, huge investments have been and are being made to develop iron ore in Ontario, Quebec and Labrador. This ore is available to the United States, and, in fact, is largely being developed for that market. It would obviously be against Canada's interest to have large investments made in good faith to supply iron ore to the United States undercut by the transmission of Alberta gas to Minnesota.

From the foregoing review of the two

A. E. Grauer,
Dir. Ex. by Mr. Massie.

- 1898 -

proposals before the Board to take Alberta natural gas eastward, one can conclude that, first, they are not in the best interests of Alberta producers; second, they are not on their merits the equal of the proposal to take Alberta gas to the Pacific Northwest, either on geographic or economic grounds; third, from the crucial defence production viewpoint there is nowhere near the urgency for natural gas to go eastward that there is for it to go to the Pacific Northwest.

7. REASONABLE PRICE AND A STRONG MARKET.

It is to the interest of the producers in Alberta that a large and strong market be built up in the area to which export is allowed. The market should be large enough to use the normal capacity of the pipe line within three to five years of the completion of its construction and the market developed should be strong enough to withstand the pressure of competition, such as periodic downward changes in the price of competitive fuels like oil. In this way the producer gets a reasonable price from the outset and has the security over a period of years of a strong market.

The Pacific Northwest, as a market for Alberta gas, meets these tests in a way that no other market does, because it is the only large market in close proximity to Alberta. The relatively short pipe line means that 1,000 BTU gas should be deliverable to the Pacific Coast cities by the pipe line company at an average price of about 32 cents per Mcf to distributors at a utility load factor of 70%. Such a price would allow reasonable payment

A. E. Grauer,
Dir. Ex. by Mr. Massie

- 1899 -

to the producers and would mean that the distributors could build up a strong, diversified natural gas business at reasonable rates to the consumers.

The Pacific Northwest market is, in summary, the only market available to Alberta with this very favourable combination of characteristics:

- (i) It will give a substantial market quickly, almost as soon as the pipe line is completed, because it is a virgin market. This will benefit producers and the revenues of the government; and will stimulate new drilling.
- (ii) The initial market is not so big that it might cause an undue drain on Alberta's gas reserves.
- (iii) It will be the strongest possible market both for security against competitive fuels and for growth. based on intensity of consumption because its geographic closeness to Alberta allows gas to be delivered to the consumer at a reasonable price.
- (iv) For the long run, the Pacific Coast market is capable of great expansion both intensively and extensively (i.e. down the Coast). It can, therefore, accommodate a large increase in Alberta's exportable surplus over the years, if such should prove to develop.

Pacific Coast gas export would, therefore, be based on firm foundations from the viewpoints both of producers and the government in Alberta and of consumers on the Pacific Coast.

A. E. Grauer,
Dir. Ex. by Mr. Massie

- 1900 -

8. CONCLUSION

To sum up the highlights of our submission:

- (1) The economics of Alberta and British Columbia are complementary to one another and the development of either one is therefore to the benefit of the other.
- (2) In the economic interest of Alberta as producer and exporter of natural gas, the first export of gas should be to the Pacific Northwest.
- (3) The inescapable logic of geography dictates the Pacific Northwest as the first export market for Alberta natural gas.
- (4) The Pacific Northwest is the largest close market to Alberta, its economic characteristics make it a first-class potential market and it is entirely untouched by existing sale of natural gas.
- (5) In the interests of the vital joint defence program of Canada and the United States the first export of gas from Alberta should be to the Pacific Northwest.
- (6) In view of the current critical steel shortage it is an important consideration that a pipe line to the Pacific Northwest, as well as serving defence purposes, compares favourably with proposed pipe lines eastward in its requirements for steel.
- (7) The export of gas to the Pacific Coast would allow reasonable payments for gas to be made to purchasers

A. E. Grauer,
Dir. Ex. by Mr. Massie

- 1901 -

and a price to be charged to the distributors that would enable them to build a strong diversified natural gas business at reasonable rates to the consumers.

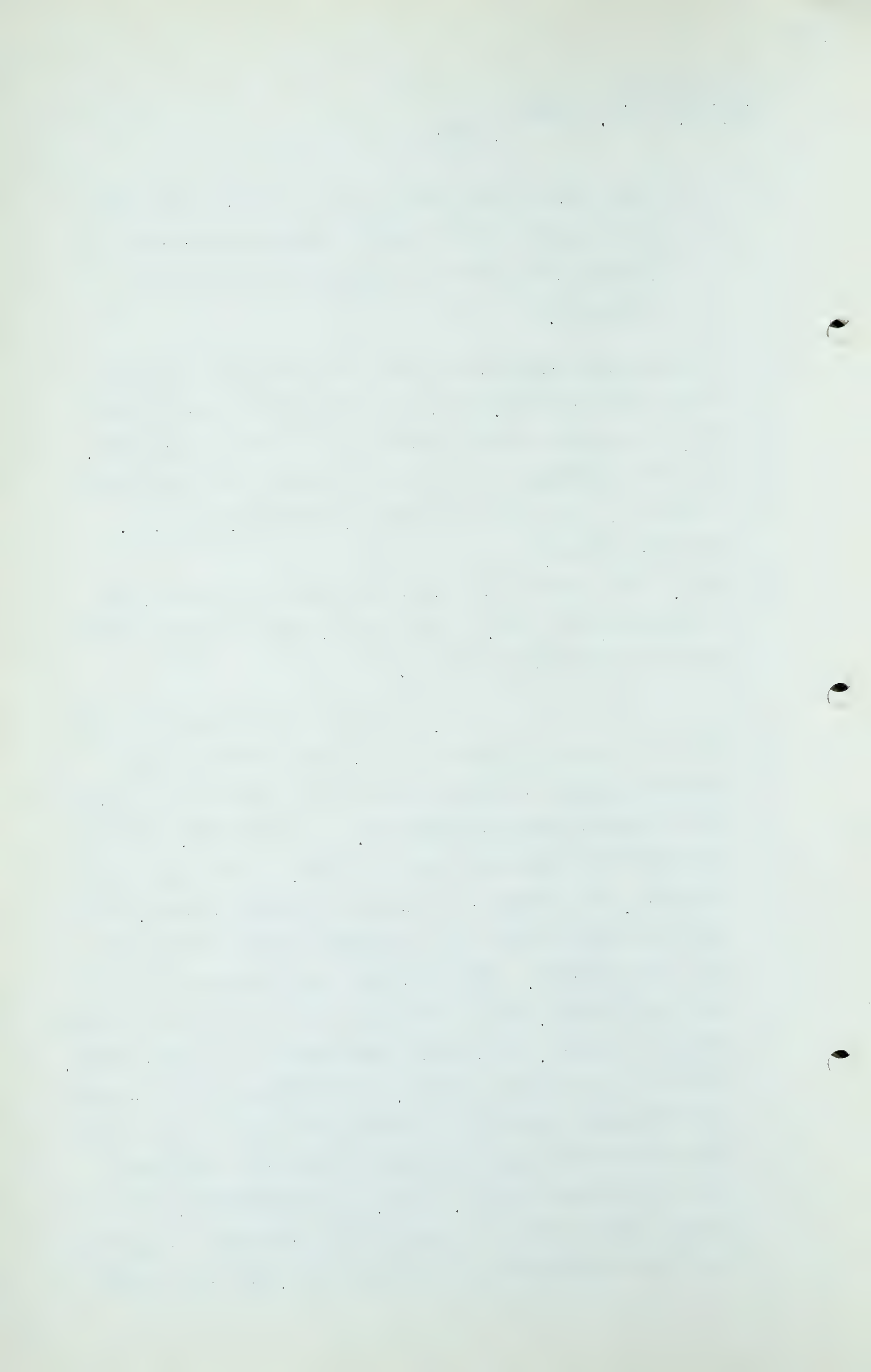
Q Have you anything further that you would like to add to this submission, Mr. Grauer, on behalf of the distributors?

A No, that is the complete submission for the distributors.

Q Is there anything you would like to say to the Board with respect to the position of your own company, the B. C. Electric Company?

A Yes. This is my first appearance before the Board, and probably my only one, so that I would like to make a statement on behalf of my company.

Now, my submission has been that the natural outlet for natural gas produced in Alberta and British Columbia is British Columbia and the Pacific Northwest States in the United States. I, naturally, have the interests of British Columbia at heart. I live in British Columbia. My company is a British Columbian company, which is both dependent upon and interested in the development of that Province. There are gas and oil resources in Northern Alberta, and in the Peace River district of Northern British Columbia. If adequate gas reserves are established, or will be in the near future, in that area, then my company would strongly support the proposal that gas should be piped from those sources through British Columbia to Vancouver and the Northwest States. That, in my submission, would be the logical course to pursue in the interests of present and future development of both Provinces, and would supply



A. E. Grauer,
Dir. Ex. by Mr. Massie
Cr. Ex. by Mr. S. B. Smith

- 1902 -

the natural market that would be available for these gas reserves. This would mean intensive exploration in the norther areas of both Provinces, and would make a tremendous contribution to the economy of Western Canada. It is obvious that, without an available market, there would be little incentive for the development of gas resources in this area.

Now, naturally, what I have said on behalf of my company is based on the assumption that gas from the north can be delivered to Vancouver very reasonably, over a reasonable and secure route, and at a price that will promote the domestic and industrial use of gas in the lower mainland area, where the bulk of the population and industry of British Columbia is centred.

Q Does that conclude your submission, Mr. Grauer?

A That concludes my formal submission.

THE CHAIRMAN: Does anybody wish to question the witness?

.....

CROSS-EXAMINATION BY MR. S.B. SMITH:

Q Mr. Grauer, the British Columbia Electric Company is, I believe, in the position of being a producer and a distributor of hydro-electric power and manufactured gas?

A That is right.

Q And there are, I take it, in your view, markets capable of absorbing the use of natural gas in quite substantial quantities?

A Yes.

Q And I take it that you think that your company would be

A. E. Grauer,
Cr.. Ex. by Mr. S. B. Smith

- 1903 -

the natural distributor of natural gas, if it came to
British Columbia from Alberta?

A For the lower mainland.

Q For the lower mainland?

A Yes, and the Island.

Q And your company is, therefore, very interested in getting
natural gas from Alberta, if it is possible?

A That is right.

Q And your main interest, outside of getting it, is to get
it at a proper and reasonable price?

A Yes.

Q So that you can distribute it at prices which are competitive
with other fuels and sources of energy?

A Correct.

Q And thereby increase the business of British Columbia
Electric, and also probably advance the economic interests
of the part of British Columbia that you do business in,
would that be a fair statement?

A Yes.

(Go to page 1904)

A. E. Crauer,
Cr. Ex. by Mr. S. B. Smith.

- 1904 -

Q Now, the British Columbia Electric's interest then is to get natural gas from Alberta?

A Yes.

Q British Columbia Electric Company . . .

A When you say Alberta, mind you we are speaking of the Peace River part of British Columbia as being dependent upon gas from Northern Alberta, so I should say more correctly from Alberta and northern B.C. There is a link there. That is one of the submissions before this Board.

Q Mr. Grauer, it does not matter to British Columbia Electric Company from what field or what particular part of the province the gas comes from, does it? Your interest is to get the gas so that you can distribute it in Vancouver and in the lower mainland?

A Well, other things being equal. The difference between the proposals would be that with respect to one the production of gas in Peace River area of British Columbia would be stimulated.

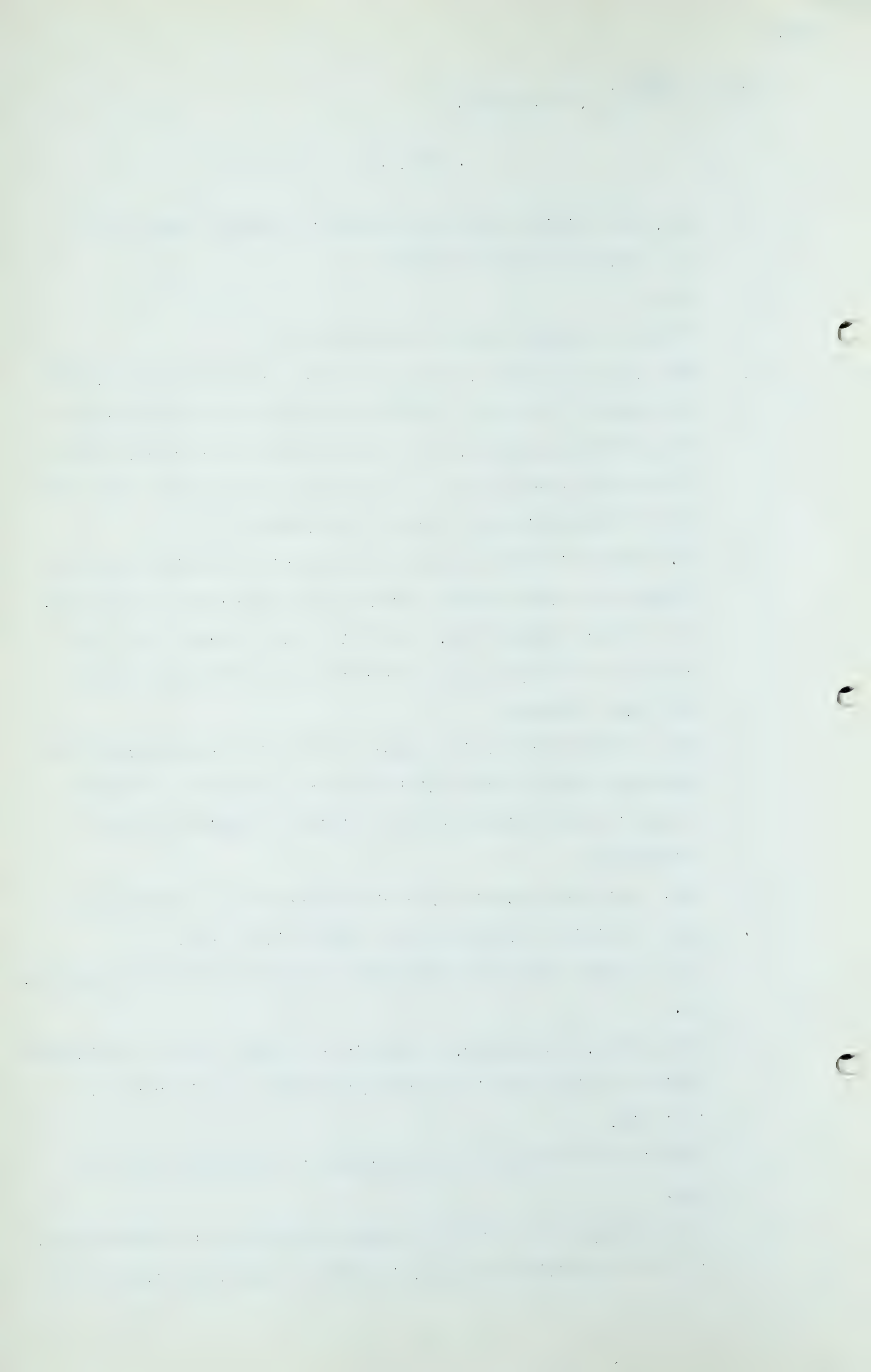
Q Yes. British Columbia Electric Company has no interest in gas in British Columbia in the Peace River area?

A No. We have no wells there and we have no sharehold interest, no.

Q To be fair, Mr. Grauer, I take it you would say your principal desire and interest is to get natural gas to distribute, isn't it?

A That is the purpose of the company, to distribute natural gas.

Q The company has no other interest in relation to natural gas, it is a distributor of gas, it wants to get more gas to sell



A. E. Grauer,
Cr. Ex. by Mr. S. B. Smith.

- 1905 -

to the consuming public?

A As a distributor.

Q As between applicants to this Board, as you have indicated this morning, your company stands completely impartial as between them?

A Yes. We believe that is the Board's function.

Q And you do now stand completely impartial because you have given letters of intent to the various applicants and you have refused to enter into a firm contract?

A That is right.

Q And that will be your policy until this matter is determined finally?

A That is right.

Q Well, now, Mr. Grauer, you have entered into quite a discussion in your brief about gas for Ontario, and I take it you have given that subject some consideration and study?

A Yes.

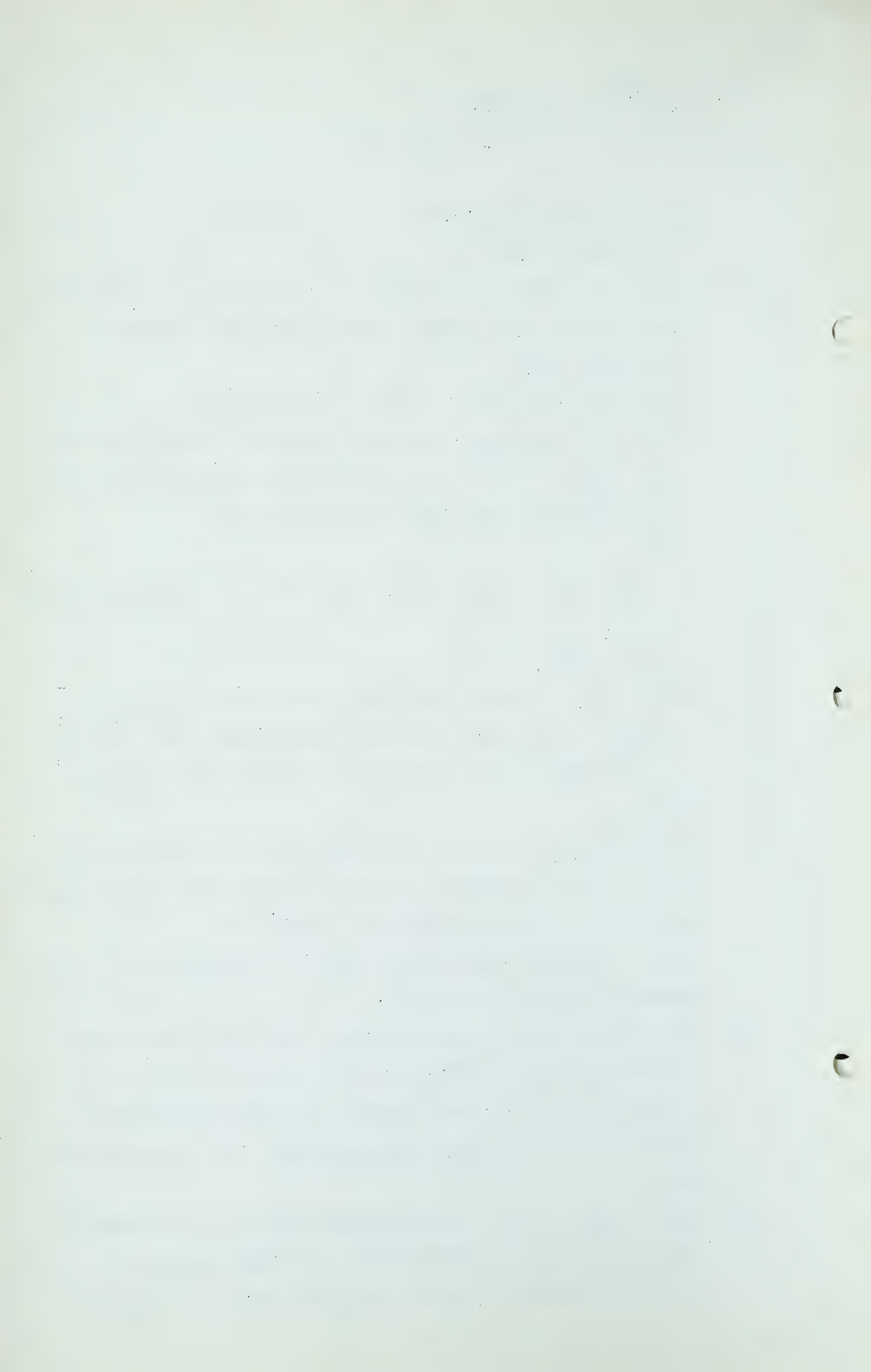
Q You probably have heard that Ontario has for some considerable time been anxious to get more natural gas because they are short of natural gas there, aren't they?

A Well, I should think any area that has not got natural gas would be anxious to get it.

Q And you are aware, I would gather, that there have been efforts to take American gas into Ontario in quite substantial quantities and because of various difficulties those efforts have not been successful. Have you heard that?

A Yes.

Q And I take it that you would agree that if it is desirable that natural gas be provided for the lower mainland of British Columbia, if gas is available, that it is possible



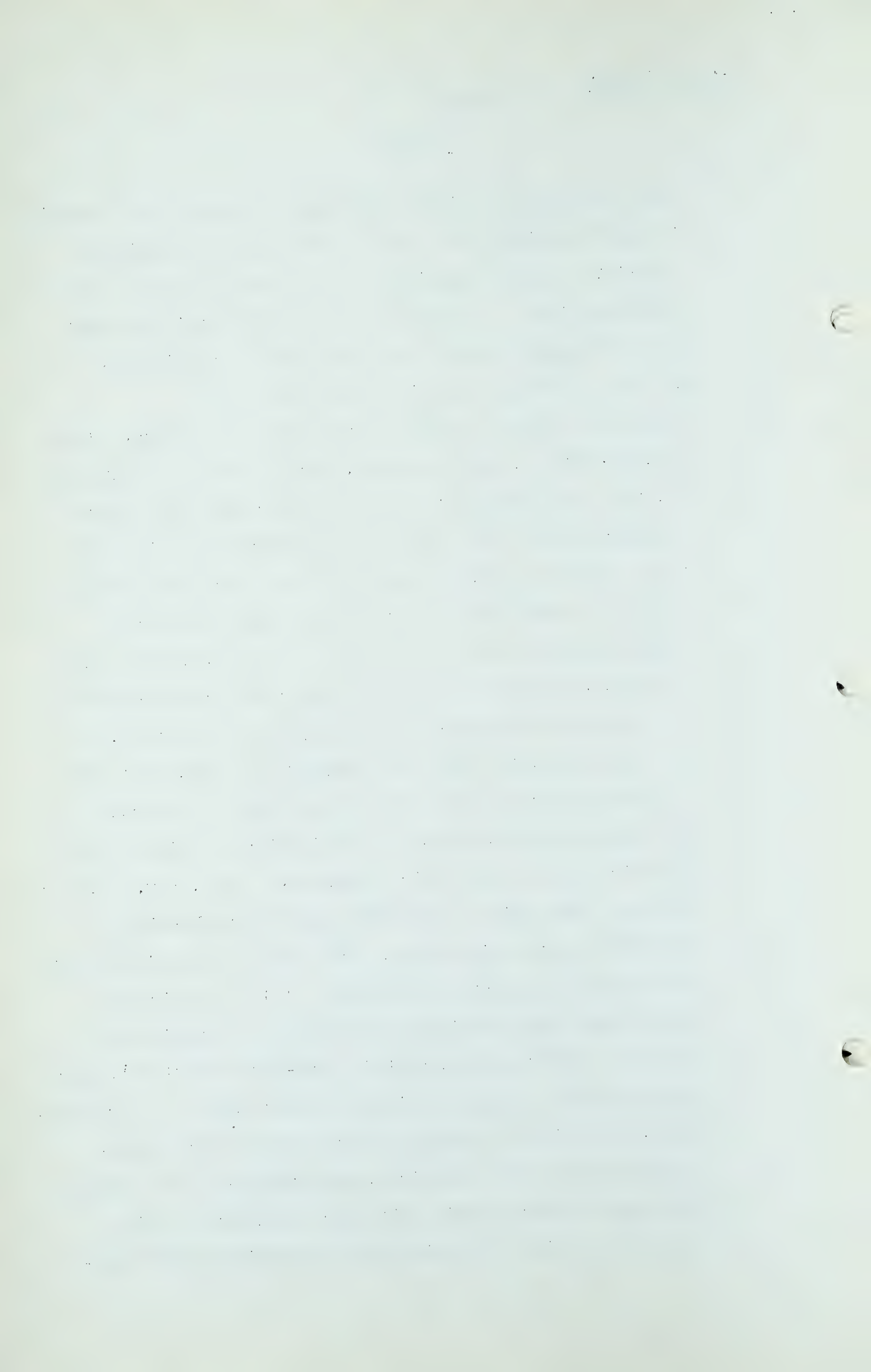
A. E. Grauer,
Cr. Ex. by Mr. S. B. Smith.

- 1906 -

also and equally desirable that gas be provided for Ontario, if gas is available and can be economically supplied to Ontario? I am not talking at the moment about where the gas comes from. It seems to me natural that if you want gas in British Columbia they want gas in Ontario too.

A As long as you put them in that order.

Q They both come to Alberta to talk about it, though. Well, now, Mr. Grauer, you are aware, because you have mentioned it, that the Government of this Province has made certain statements about the uses to which Alberta gas, in their view, should be put, generally to the effect that Alberta should be looked after first and if there is a surplus, Canada should be looked after next. If I summarized them correctly, perhaps in a general way those are the effects of some of the statements to which you have referred, and you have gone into those and analyzed them and, as I take it, endeavoured to show that perhaps they are too general. You describe them as vague generalizations to discuss the economic aspects of Pacific Northwest. Well, now, I have a statement here said to have been made by the Premier of this Province to this effect, "The policy of the Government respecting gas export is threefold. (1) To provide no export until fully satisfied that there are sufficient available reserves for Alberta's long-term needs; (2), When satisfied that a surplus exists over and above these requirements, sufficient to justify export under sound conservation and proration practices, the Government will approve the export of such surplus with each application being considered on its own merits and in the light of all pre-

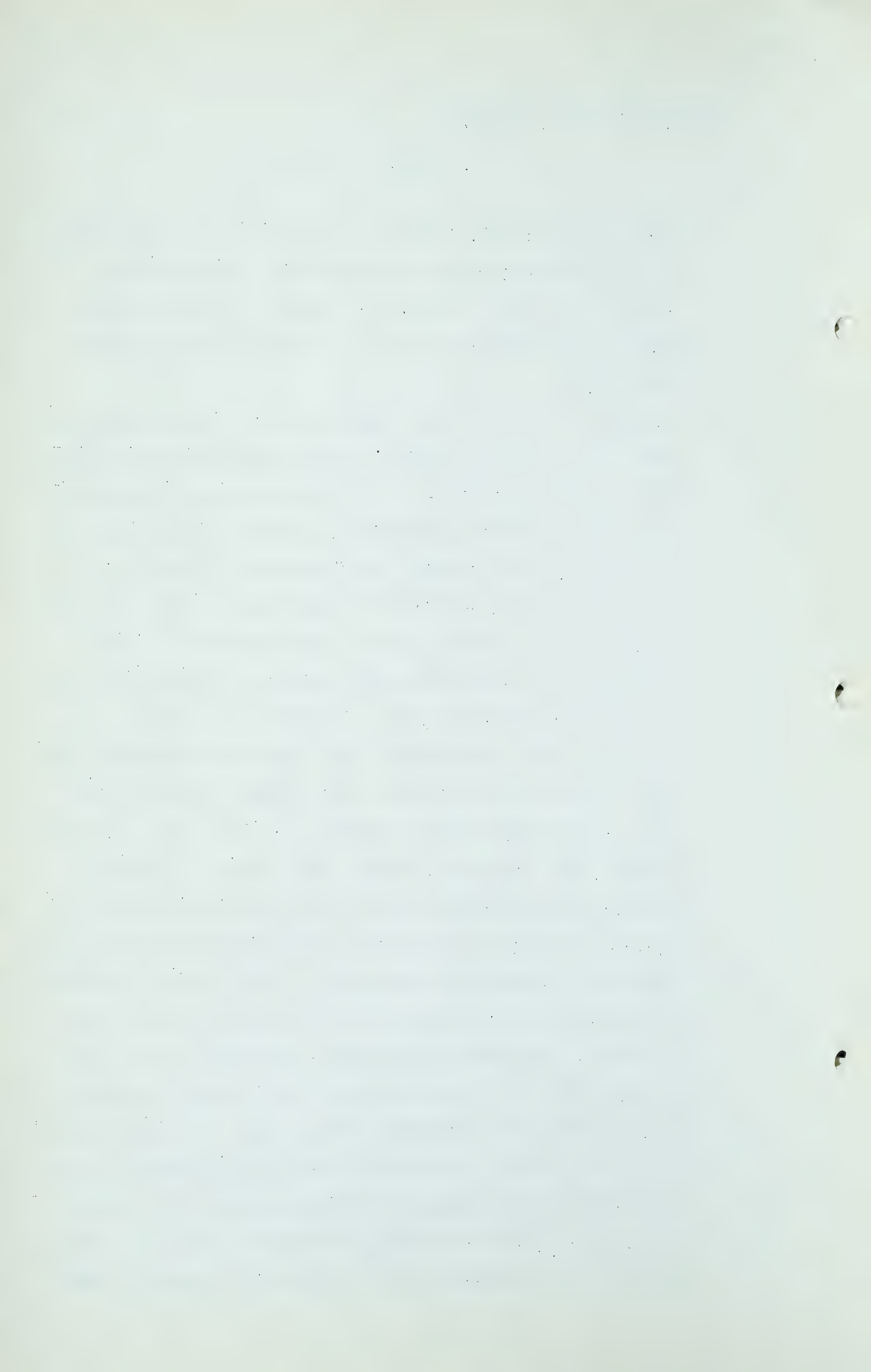


A. E. Grauer,
Cr. Ex. by Mr. S. B. Smith.

- 1907 -

vailing factors; (3), it will be a condition of any export permit that Canadian requirements must be given first priority." I do not know, Mr. Grauer. You would not suggest that that statement is a "vague generalization", would you?

A Apparently I have not made myself clear. The statement you just read of Premier Manning's said that Canadian requirements be given priority. If there was a pipe line authorized to go to British Columbia my company would certainly do its best, and I imagine our Governments would too, to stipulate the B.C. requirements would come first. Now it may be, you see, these general statements that I read, I personally have never seen any statement issuing from the Government in which they were included. I took the word of counsel from a transcript that those statements had been made. My only point is that in a general statement like that, if the Government is making it, it may have one thing in mind. For instance, it may have in mind the British Columbians are Canadians as well as the Ontarians and that British Columbians can only be served by Alberta natural gas along with certain American cities in the Pacific Northwest. All that may be included within the orbit of the general statement. Now somebody else may come along and use that general statement to try to prove that the gas should go to Ontario, which the Government did not have in mind at all. That is why we have put in this brief point number 4, that if either of those generalizations purported to be Government policy, before this Board implemented them in a way that has been suggested in the transcript to which I made



A.E. Grauer,
Cr. Ex. by Mr. S. B. Smith.

- 1908 -

reference it should be clear from the Government of Alberta as to what they meant.

Q You cannot clear it, you and I, of course?

A No.

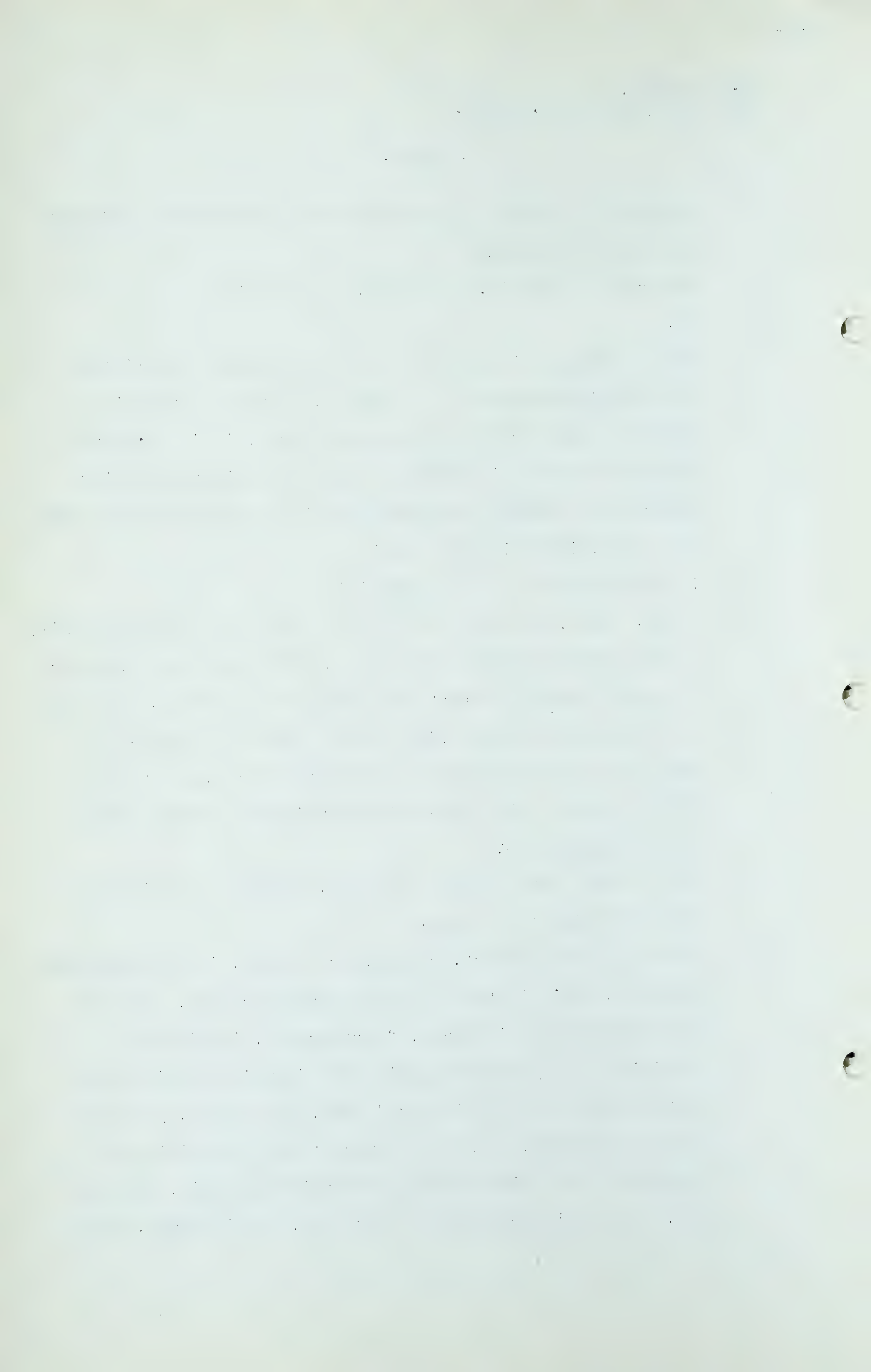
Q And you suggest it should be given a somewhat restricted or qualified meaning to the effect, I take it, that if, in order to serve British Columbia with gas, it is necessary to serve the Pacific Northwest that that might be giving priority to Canadian requirements first and you suggest that as a possibility in any event?

A I would suggest it as a probability.

Q I see. Well, we cannot tell about that. Another possibility is that the statement means that Alberta gas should be used to supply Canada and that when the parts of Canada that can be economically served with Alberta gas are looked after that then there might be gas available for export to the United states. That is another meaning that those words are susceptible to?

A That is why I say those, I thought, should be clarified if they are going to be used.

Q And to the same effect, really, Mr. Grauer, is the statement of Mr. Tanner's in his letter of September 23rd, 1950, to the Chairman of this Board, "Furthermore, it will be a condition of any export permit that Canadian requirements must be given first priority." Now, Mr. Grauer, you have at various times, I assume, heard of the possibility of Canada and the United States exchanging fuel oil, natural gas, on a reciprocal basis. Have you, for instance, heard



A. E. Grauer,
Cr. Ex. by Mr. S. B. Smith.

- 1909 -

of the suggestion that perhaps Western Canadian oil should be permitted to go into the Western and Mid-Western States and American oil from the Eastern part should be permitted to go into Canada to save long transportation of the products from the two sides of the border? You must have heard discussions on that?

A I do not know of any specific suggestions.

Q Well have you heard in these proceedings there is at least a possibility of an exchange of natural gas between Canada and the United States, the proposal being that generally, in particular general terms, that Alberta gas might be supplied to the Pacific Northwest, including Vancouver and that gas from the United States might be supplied to Ontario. You must have heard that?

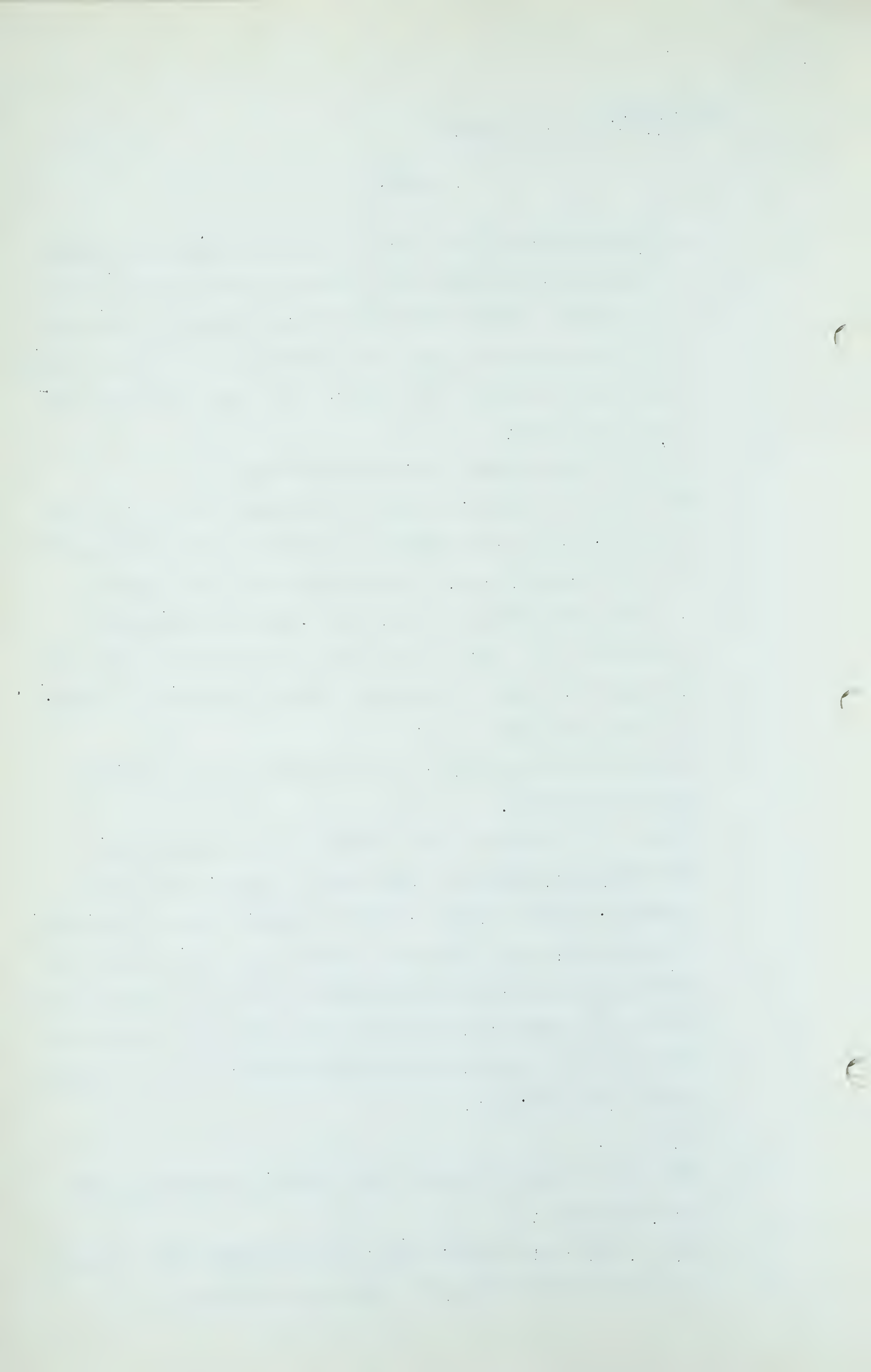
A I understand there has been a proposal of that nature put before the Board.

Q Yes. An exchange of that nature, if the amounts were approximately balanced, would mean in effect that all of Alberta's gas was being consumed in Canada because for every thousand cubic feet that were going to the United States an equivalent thousand would be coming in from the United States, so that the result would be the same under that proposal as though Alberta gas were entirely distributed and sold within Canada, wouldn't it?

A Well . . .

Q That would seem to follow. There can't be any doubt about it, can there?

A Well, I have been trained both as an economist and a lawyer. I follow you as a lawyer but not as an economist.



A. E. Grauer,
Cr. Ex. by Mr. S. B. Smith.

- 1910 -

Q Unfortunately I am just a lawyer, Mr. Grauer.

A From an economical point of view, international trade is something to be welcomed, not to be regarded as abhorrent. You may have noticed a speech of the Honourable Mr. Martin just the other day. I took the clipping from a Vancouver newspaper in which he boasts about the fact that Canada's international trade has reached an all-time high. He refers to many other things and the fact that the United States is the best customer of Canada, but he realizes that international trade is desirable, it is a symbol of the wealth of the country, so I would not restrict anything to the exchange of one commodity.

Q But we are talking about one commodity here, so I take it as an economist and a lawyer perhaps an exchange of that sort might be desirable, might well be desirable?

A Well, I would allow you to make that guess.

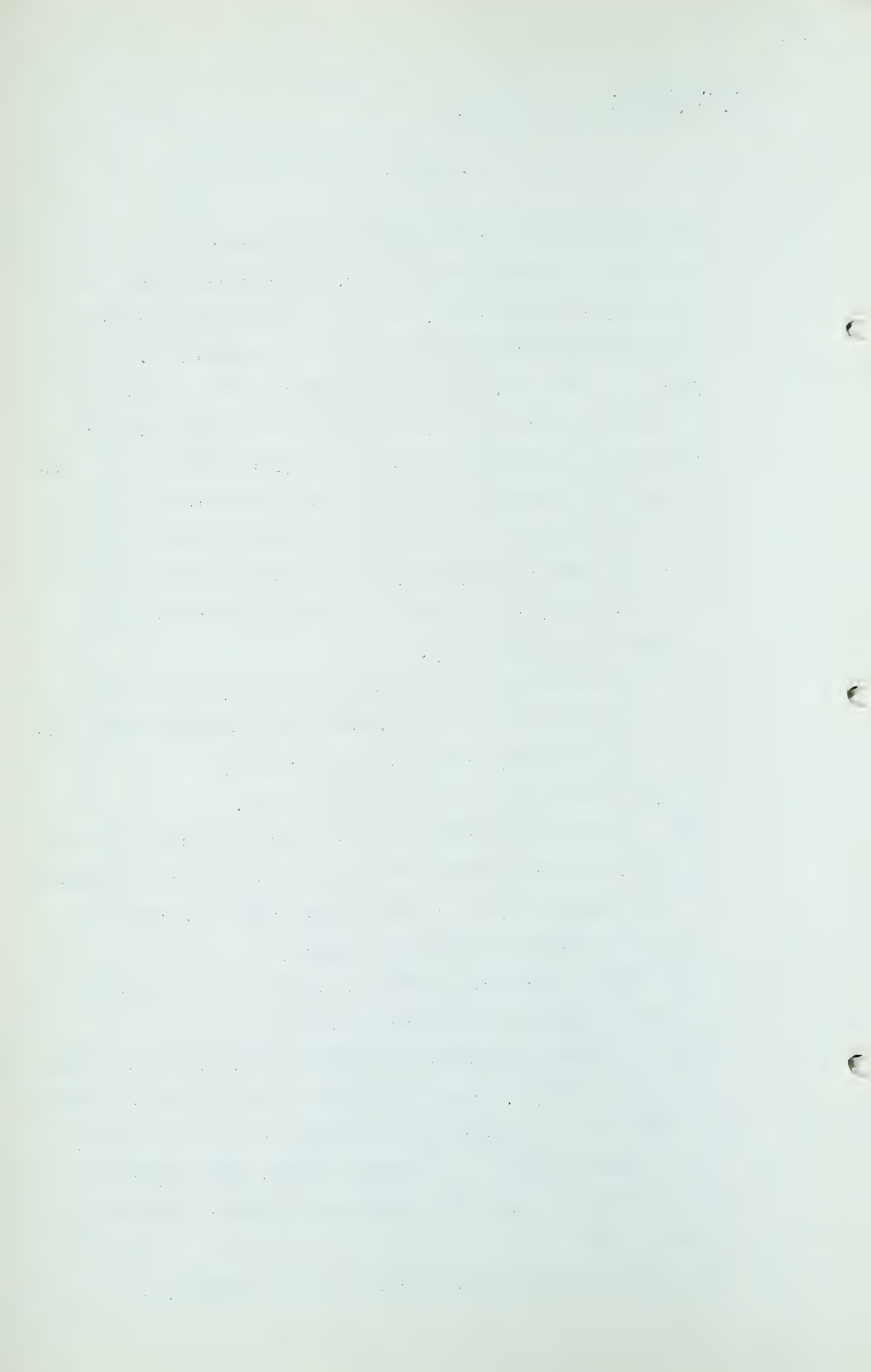
Q Well, it would be desirable from the point of view of British Columbia Electric Company and the Province of British Columbia if such a plan resulted in natural gas being provided for the lower mainland of British Columbia?

A There may be merits in a specific proposal of that nature. It would depend on the specific details.

Q It would depend on a great many aspects, the economics of it and various things. I am not trying to tie it down to matters of that kind. I am talking in generalities at the moment?

A Yes, I realize that. I am simply saying from my point of view I would not pass any opinion on a specific proposal of that nature.

Q But you would have no objections, or your company, to a



A. E. Grauer,
Cr. Ex. by Mr. S. B. Smith.

- 1911 -

proposal of that nature, provided it got gas to British Columbia at a reasonable price. That is all you are interested in, you have indicated to us.

A Well, there are a large number of considerations, as you know, in any specific proposal.

Q I know.

A That is one of the reasons my company has taken the attitude that it has. This Board gets all the evidence and comes to a decision which we are incapable of making on the same basis at all. Therefore my company will not commit itself.

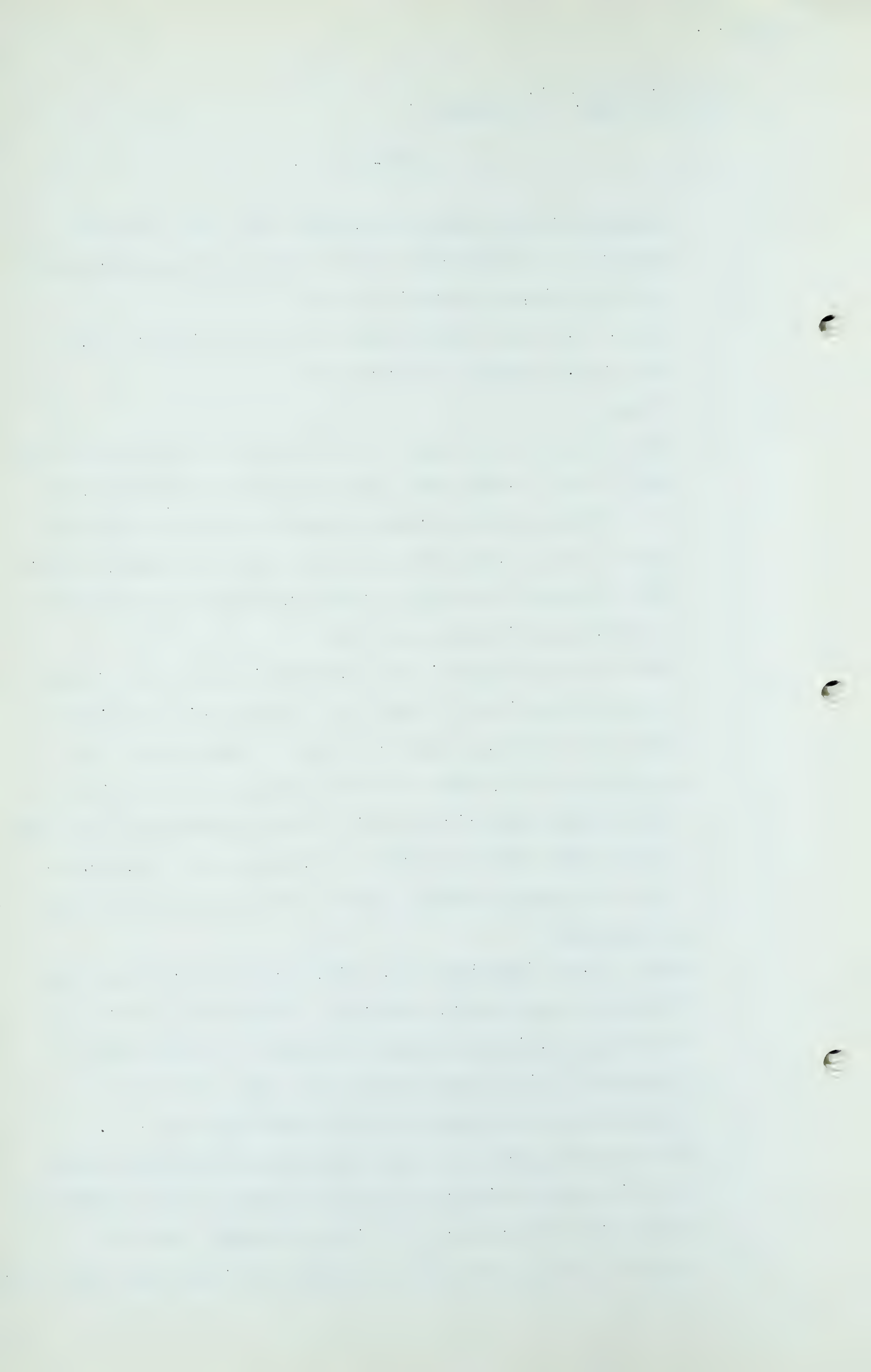
Q Yes, and you do not want to commit yourself at the moment?

A No, I certainly do not intend to.

Q That is quite obvious. But certainly economic factors and considerations that you have been speaking of, if Alberta gas could be, or gas from this part of Canada could be, provided to your company and on economic conditions and at a reasonable price, and if part of that arrangement entailed American gas going to Ontario, I cannot think, Mr. Grauer, that you or your company would object in any way to such an arrangement?

A Well, I will simply say this, that where there are several different proposals for the use of Alberta gas in British Columbia, it is obvious that there must be some order of priority if you set the whole thing down, and that is precisely what we hoped the Board would indicate.

Q Such an arrangement as I have been describing might comply with the conditions laid down by the Premier and the Minister that I have referred to, if those statements mean that Alberta gas is to be used in Canada, if it has that restricted



A. E. Grauer,
Cr. Ex. by Mr. Smith.

- 1912 -

meaning and not the meaning you ascribe to it, such a plan might comply to that whereas a straight distribution of Pacific Northwest without any reciprocal provision might not. That is apparent, isn't it? It is perfectly obvious?

A I have no idea what is in Premier Manning's mind.

Q I am assuming he has in mind what I am suggesting, such a reciprocal arrangement. I cannot tell any more than you can, Mr. Grauer, but if he does mean that?

A Well, if any assumption is valid the conclusion is valid too.

Q Now, such a reciprocal arrangement, I think you perhaps would agree, might get natural gas to Ontario, assuming under such a reciprocal arrangement it can be brought there at a lower cost and more economically when they cannot get natural gas at the present time. That is possible, isn't it?

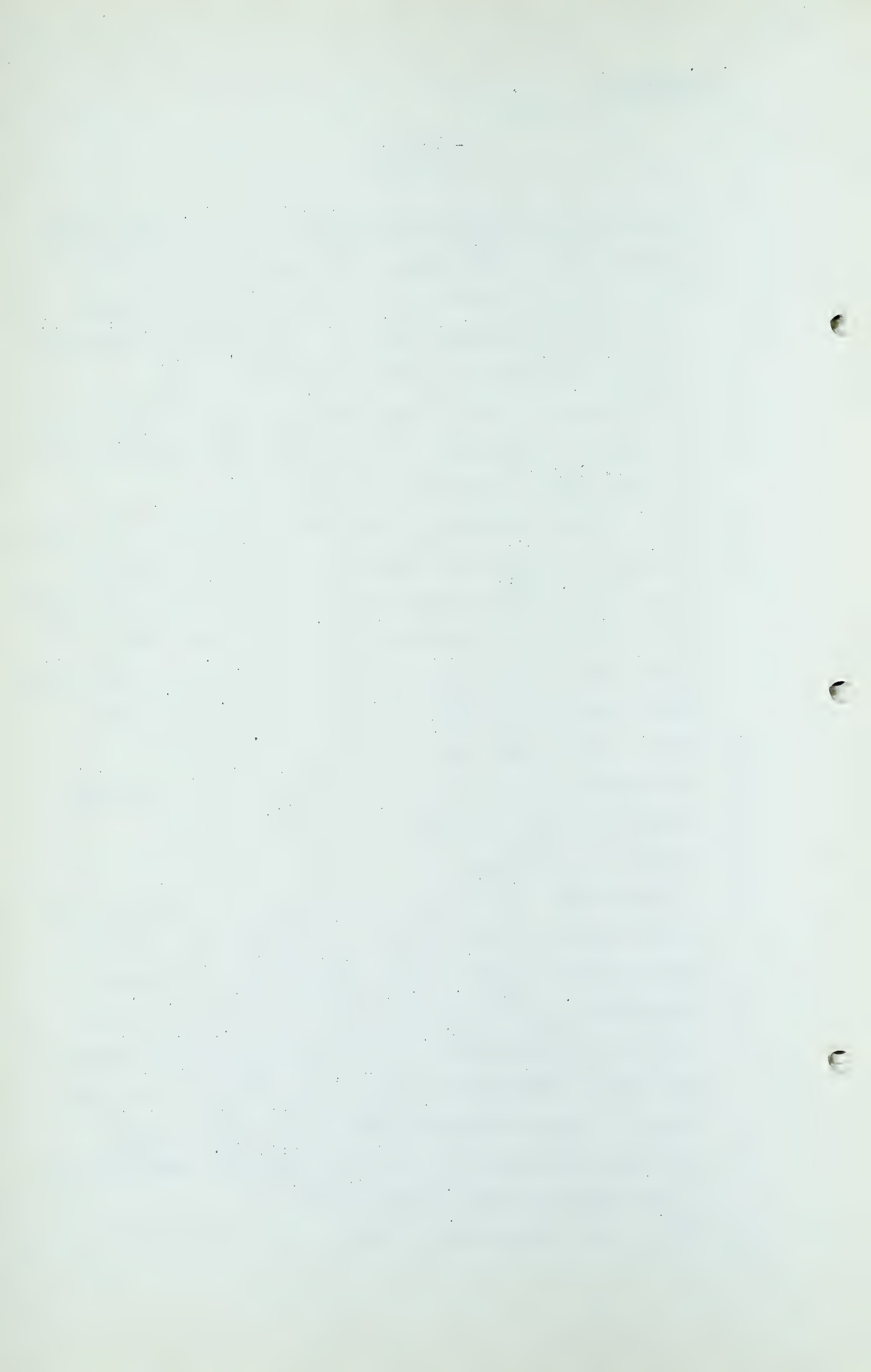
A Well, I would agree that it is possible.

Q And you say in effect in your brief that it is uneconomic, though, to take natural gas to Ontario?

A I say it is uneconomic at this time.

Q At this time. And if you be correct in that statement you might assume you are correct at the moment, and then that might preclude Ontario at the present time from getting Alberta gas, so that it might well be desirable, from the point of view of Ontario, to have some reciprocal arrangement if that gets gas to Ontario, and perhaps it gets gas there at a reasonable price also. That might be very desirable from the point of view of Ontario. That would be a fair assumption also, would it not?

A Well, I have no opinions on that.



A. E. Grauer,
Cr. Ex. by Mr. McDonald.

- 1913 -

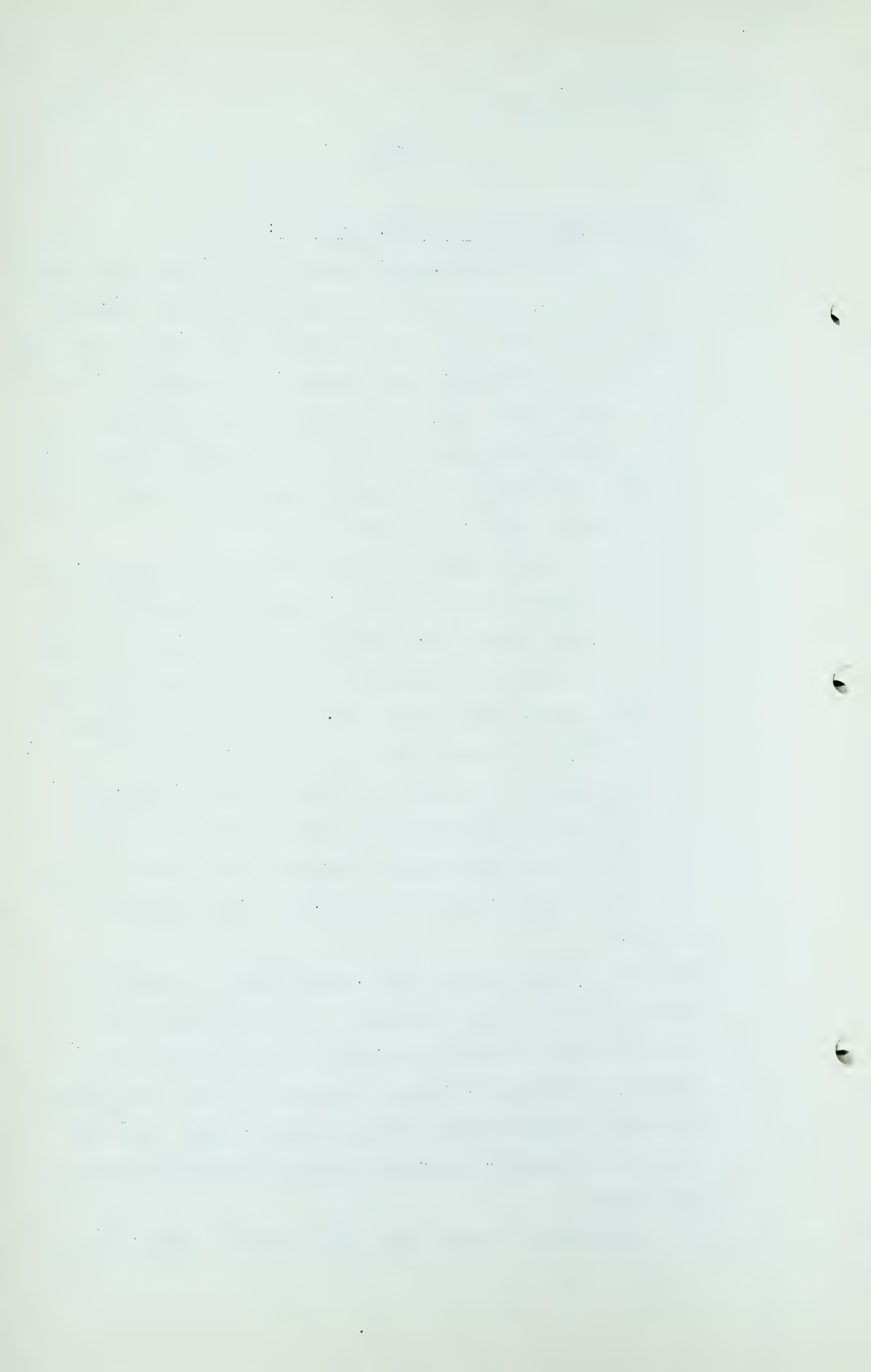
CROSS-EXAMINATION BY MR. McDONALD:

Q Just one point, Mr. Chairman, I would like to ask Mr. Grauer. At page 9, Mr. Grauer, in item 7 of your exhibit, you deal with the last sentence, "At an average price of about 32 cents per Mcf to distributors at a utility load factor of 70%." What I had in mind, you used the words "about 32 cents". I presume that there are some slight variations, so 5% would not make much difference in your calculation as set out in this exhibit, either up or down.

A I will tell you how that figure was arrived at, Mr. McDonald. Various distributors some time ago separately arrived at a price at about which they thought they could build up strong markets in the Pacific Northwest and beyond which they would not particularly like to go. This proved to be remarkably close, within 1 cent when we compared notes. At the time the range was 29, 30 cents, that cent in there, and this 32 cents takes into account in a rough way that you had a rise in the price level since. Obviously we cannot just say there is a figure definitely, and that is why we put in "about".

Q Well, what I had in mind, Mr. Grauer, was that there is an exhibit which will be presented, I presume this morning, which shows the "about", as far as the B.C. Electric is concerned, as being 35 cents, the average price, and Portland and Seattle approximately 32 cents, so I thought when you referred to "about" your variation would be from 29 cents to 35 cents.

A I do not know if I follow you on the exhibit. What exhibit



A. E. Grauer,
Cr. Ex. by Mr. McDonald.

- 1914 -

are you referring to?

Q Well, there is an exhibit of the Northwest Natural Gas Company which was distributed last week, which sets out the average price, B.C. Electric main line system, average price 35 cents; Portland Gas & Coke, 31.89 cents.

A What does it purport to be?

Q Well, it purports to be an estimate of the annual revenue and expenses and the prices which are to be charged to the prospective customers to enable that company to earn the \$24,000,000.00 it shows as annual revenue.

A Is that supposed to be an indication that my company would be delighted to pay 35 cents?

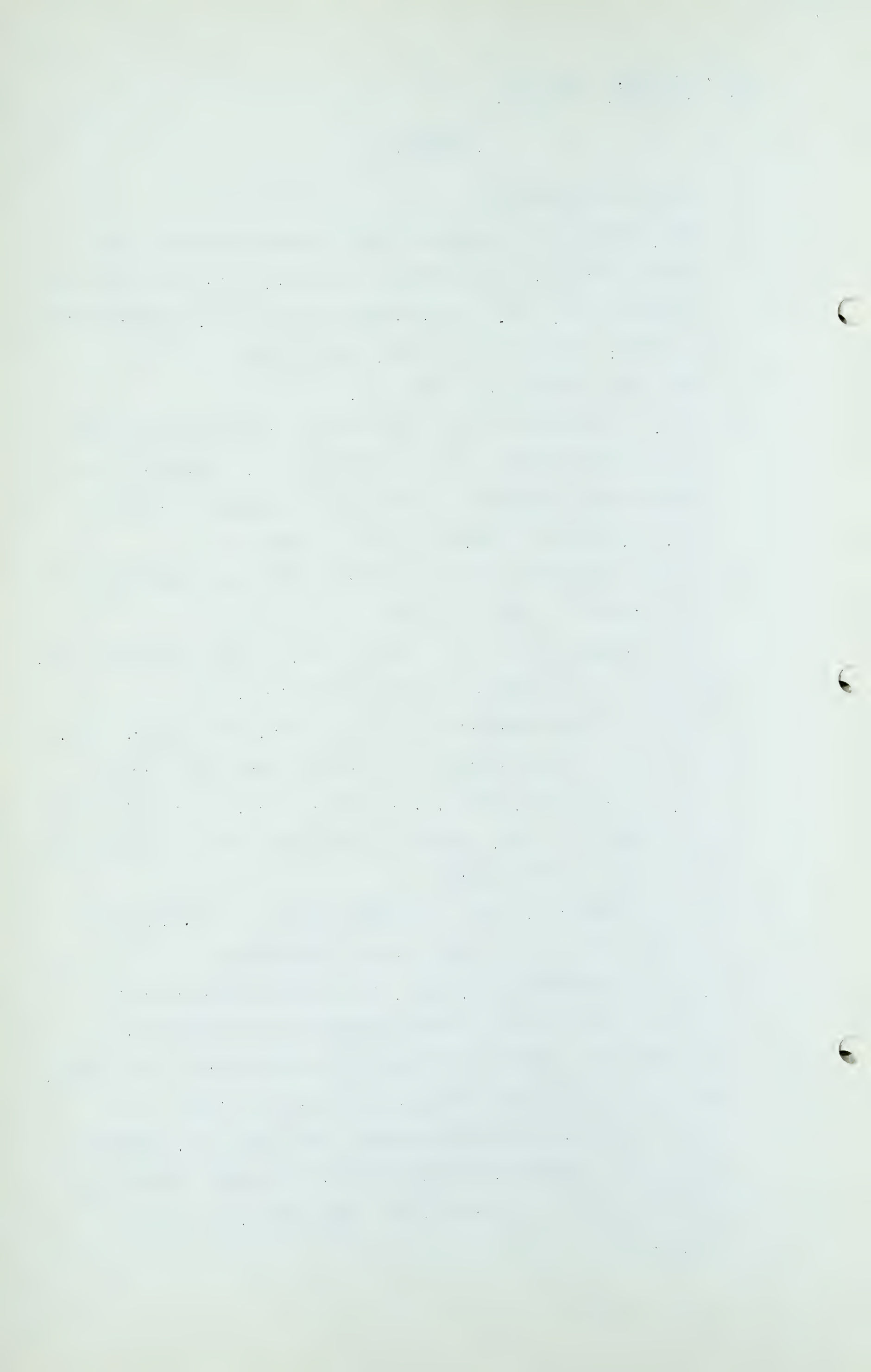
Q I was taking it at that. That is why I would like you . . .

A Because I am not aware of any such delight.

Q The only other suggestion I have for you, Mr. Grauer, then, would you be more delighted if the 32 cents was for the City of Vancouver, the B.C. Electric price, and the 35 cents was charged in, say, Seattle or Portland or the other places? That would be preferable?

A When we bargain we will be bargaining for the B.C. Electric and let other people take care of themselves.

Q Well, I was interested, then, in your reference to this contract between the Northwest Natural Gas Company and the Portland Coke and Gas Company and the Seattle Gas Company. We have not got that contract before us but it was as a result of that particular contract the price to be charged to the B.C. Electric Company would be 35 cents. Would you be making representations before this Board on another occasion?



A. E. Grauer,
Cr. Ex. by Mr. McDonald.

- 1915 -

A Well, we are not part of that group, I thought I made that clear. We certainly will bargain for the lowest price we can get.

Q There was just one thing, Mr. Grauer, that you may have in mind. What does it cost the B.C. Electric Company to produce manufactured gas in its holders, I mean approximately?

A I could probably get that figure for you.

MR. MASSIE: 38 to 40 cents.

A Manufactured gas in the holder is 28 to 40 cents.

Q MR. McDONALD: For a BTU value?

A It is 460.

Q So a thousand BTU's would be approximately twice that?

A You do not want to rush into assumptions from that figure because the gas service in our company is a losing service.

Q Well, it would be better than 80 cents if it was on a 1000 BTU basis?

A Yes, it is a relatively small business and it is losing at those figures. You could not begin to support a pipe line on the manufactured gas we are selling.

Q That is quite right. I notice another reference when dealing with the matter of price, Mr. Grauer. You used the words on page 10, "It will give a substantial market quickly, almost as soon as the pipe line is completed, because it is a virgin market." Now, that drew my attention to the fact that there is one other part of the United States that is similarly situated to the Seattle and Portland area and that is the State of Massachusetts. There are presently lines being constructed into that State. Are you aware of that?

A. E. Grauer,
Cr. Ex. by Mr. McDonald.

- 1916 -

A I do not think they want Alberta gas, do they?

Q No, not Alberta gas. Are you aware too that the price that has been fixed after negotiation and approved by the Federal Power Commission at the city gates for that particular area, or some parts of it, is 46 cents per Mcf?

A It does not surprise me when you consider where Massachusetts is in relation to Texas.

Q I am talking of competitive fuels. Is it not on a tidewater as far as fuel is concerned, oil is concerned?

A I do not know the competitive fuel situation in Massachusetts

Q I suggest it is supplied by the Venezuela interests?

A I do not know the details of that market, I take your word for it.

Q The only thing that occurred to me is that here we have consumers willing to pay 46 cents and you have your price about 32 cents?

A Well, I have been making the point that we are the closest market to Alberta. You can go from Massachusetts in a line towards Texas and you will find a lot cheaper gas than those prices you quoted. They are practically the very longest distance of any major community being supplied with gas. One of the virtues, as I tried to point out, from Alberta's point of view selling gas to the Pacific Northwest is that it will be deliverable there at a lower price than it would in other eastward communities and we can do a first class job of selling the gas. We are not restricted to space heating and interruptible load, which would not be desirable from the point of view of the Alberta distributor. It is a virtue to have a low price if you possibly can.

A. E. Grauer,
Cr. Ex. by Mr. McDonald.

- 1917 -

Q You arrive at the 32 cents, then, by considering the cost of getting gas to you rather than the competitive fuel situation in your market area?

A That price was arrived at more from a point of view of looking at the markets we hope to attract than any other way. On the question of pipe line costs, of course, we are dependent more on the Board to get the details there. We know our own markets.

Q There was just one other point, Mr. Grauer. On page 5 of your submission in item 4 you have the first sentence, "Pipe of the sizes required for any large transmission line must come from the United States". Are you aware of the intimations that have been made by these two applicants here that with respect to the lines built in Canada there is every possibility that the steel will be fabricated in Canada, in fact one suggestion is in Vancouver?

A Well, I remember statements like that made two years ago, actually, but I am talking about where you can get it.

(Go to page 1918.)

A. E. Grauer,
Cr. Ex. by Mr. McDonald
Cr. Ex. by Mr. Martland

- 1918 -

Q Right now?

A If and when those plants are built we might have to revise it, but they have been made for a long time without anything happening.

Q Of course, the permit here has not been granted yet?

A Well, the Board will have ideas on the planning of that, I do not know.

Q Yes.

THE CHAIRMAN: We will adjourn for a few minutes.

(Hearing resumed after short adjournment)

THE CHAIRMAN: Gentlemen: We will adjourn the Hearing on November 22nd to December 3rd. After discussion with Counsel, we have agreed that after the representatives of the British Columbia Government and the Consolidated Mining and Smelting Company have been heard, we will proceed to hear the Northwest Natural Gas Company, allowing them to complete their case, then proceed with the McColl Frontenac-Union Oil Company case, then with Mr. Shattuck, of the Canadian Delhi Oil Limited, and if there is any further time this week, we will hear Mr. Brownie, the representative of the two major utility companies.

.....

CROSS-EXAMINATION BY MR. MARTLAND:

Q Mr. Grauer, this Exhibit which you have filed, Exhibit 59, could be described as being essentially an argumentative submission rather than a submission of fact, is that not so?

A Why, I would leave that for you to describe.

Q Well, I am content to describe it that way, so that we are

A. E. Grauer,
Cr. Ex. by Mr. Martland

- 1919 -

in agreement with that?

A No, I would not agree with you, if you want to describe it that way.

Q What I have in mind is that when you make statements in here with regard to the market in the Minneapolis-St. Paul area, that is an expression of your own opinion rather than the result of any detailed study made by yourself or by these various companies on whose behalf the submission is presented?

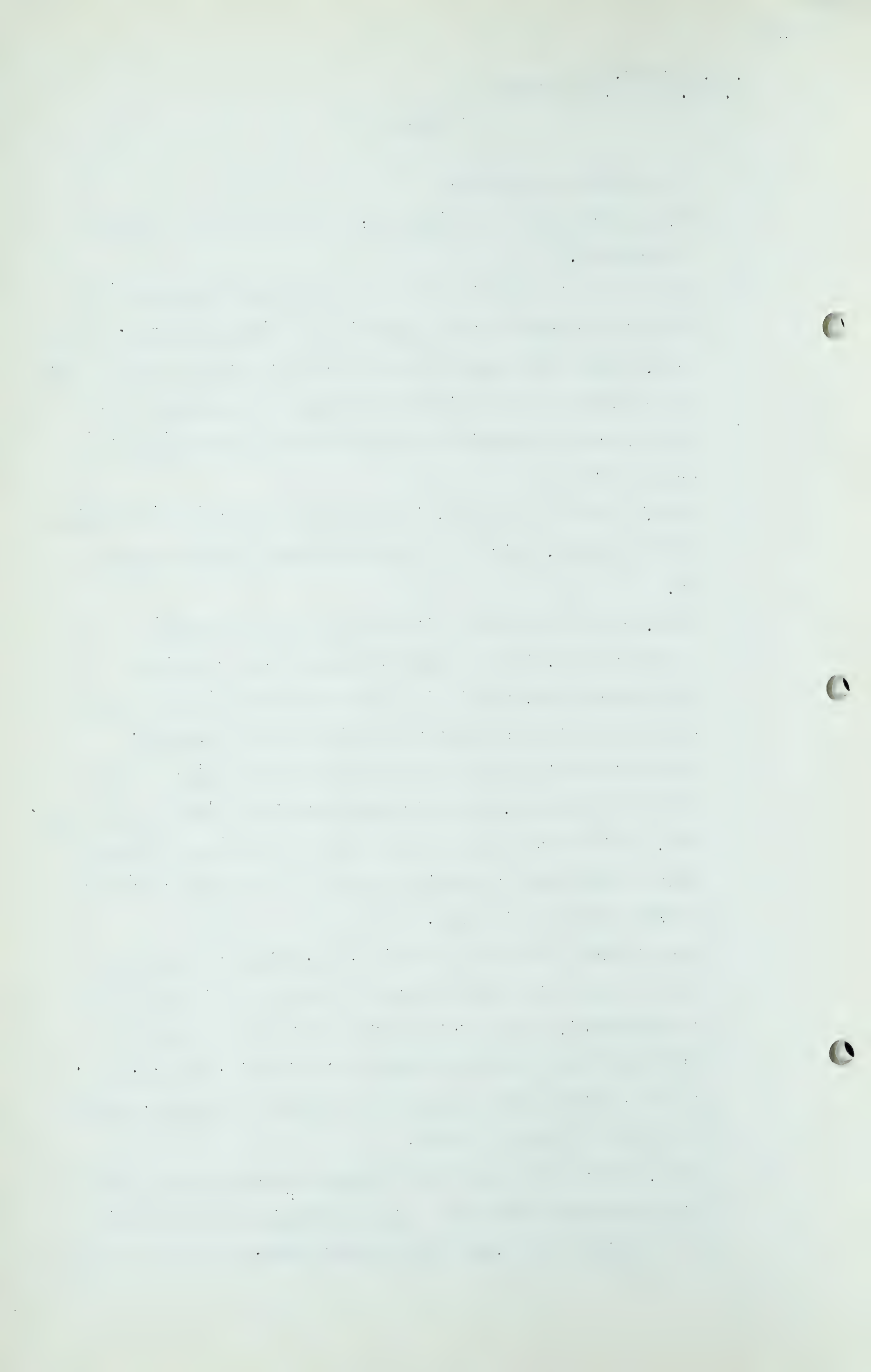
A Well, I would say it is, in the way that I think it compares the two areas, which is common knowledge, with regard to it.

Q Well, common knowledge without any detailed study?

A I mean to say, it is common knowledge that that area has natural gas, and it is common knowledge it has not got a nuclear fission plant and various of the types of industries which I have specified which do exist in the Pacific Northwest, and which are directly related to defence. Now, I will leave it at that. I am not trying to pretend that we have made a detailed audit of that area, if that is what you have in mind.

Q That is what I did have in mind, Mr. Grauer. And when you say there is nowhere near the urgency for natural gas in Minnesota, from a joint defence production point of view that there is in the Pacific Northwest, that, again, is your opinion which is based on common knowledge, without any further detailed study?

A Well, I have never seen any official pronouncement at any time indicating that there was an emergency in that area in the Middle West, and I have seen them, and in fact I have



A. E. Grauer,
Cr. Ex. by Mr. Martland

- 1920 -

quoted, that there is an emergency in the Pacific Northwest with respect to fuel.

Q You are referring now, I suppose, to the letter which appears at the end of your submission?

A Well, yes, and also the statement of the authorities with regard to the truckage of fuel. It is a well known fact that the United States Government has embarked on a large program of building generating capacity in an attempt to catch up with the fuel shortage in the Pacific Northwest of the United States.

Q And what you quote here with regard to the defence requirements comes from a letter which is May of this year, written by one American official to another, suggesting that representations be made to the appropriate authorities?

A Yes.

Q In Canada?

A Yes.

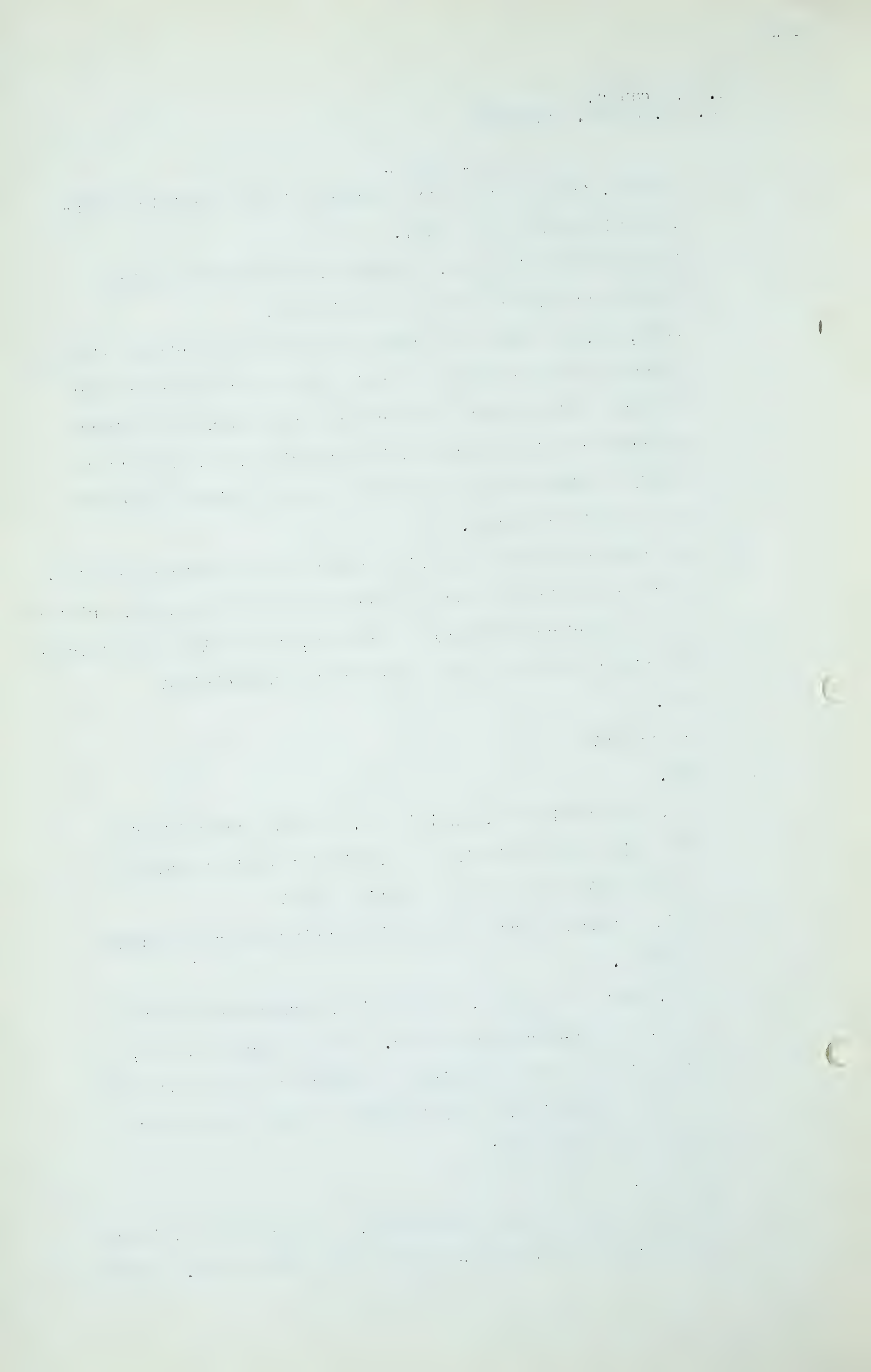
Q Now, the submission, Exhibit 59, is made on behalf of a group that has a distinct economic interest in having the gas taken out to the Pacific Coast?

A Well, I think everybody at this Hearing has an economic interest.

Q Well, most of us have. There is no suggestion that this is a non-partisan affair. And you have told us, I take it you were speaking on behalf of all the parties to this submission, that it was not filed in support of any one applicant?

A Correct.

Q And the basis of your submission, I would take it, is contained in the second paragraph of the first page, in the



A. E. Grauer,
Cr. Ex. by Mr. Martland

- 1921 -

words that a permit should be given to a company, and you do not mind which company it is, Mr. Grauer?

A Well, I indicated that that is the position of the distributors.

Q Yes. As long as it goes to a company which proposes to pipe gas to the Pacific Northwest rather than the East? Mr. Grauer. Then on page 7 . . .

A Which page please?

Q Page 7, the first sentence of the fourth paragraph,

"The natural development of export for Alberta gas would be from the centre outwards."

And, I take it, you visualize the possibility of pushing out pipe lines from the centre in different directions?

A Well, I simply mean there that nobody knows now what the future potentialities of natural gas in Alberta, or for that matter, in the Prairie Provinces, generally, is, and if they should prove to be vast, one would naturally expect that the pipe lines would be extended.

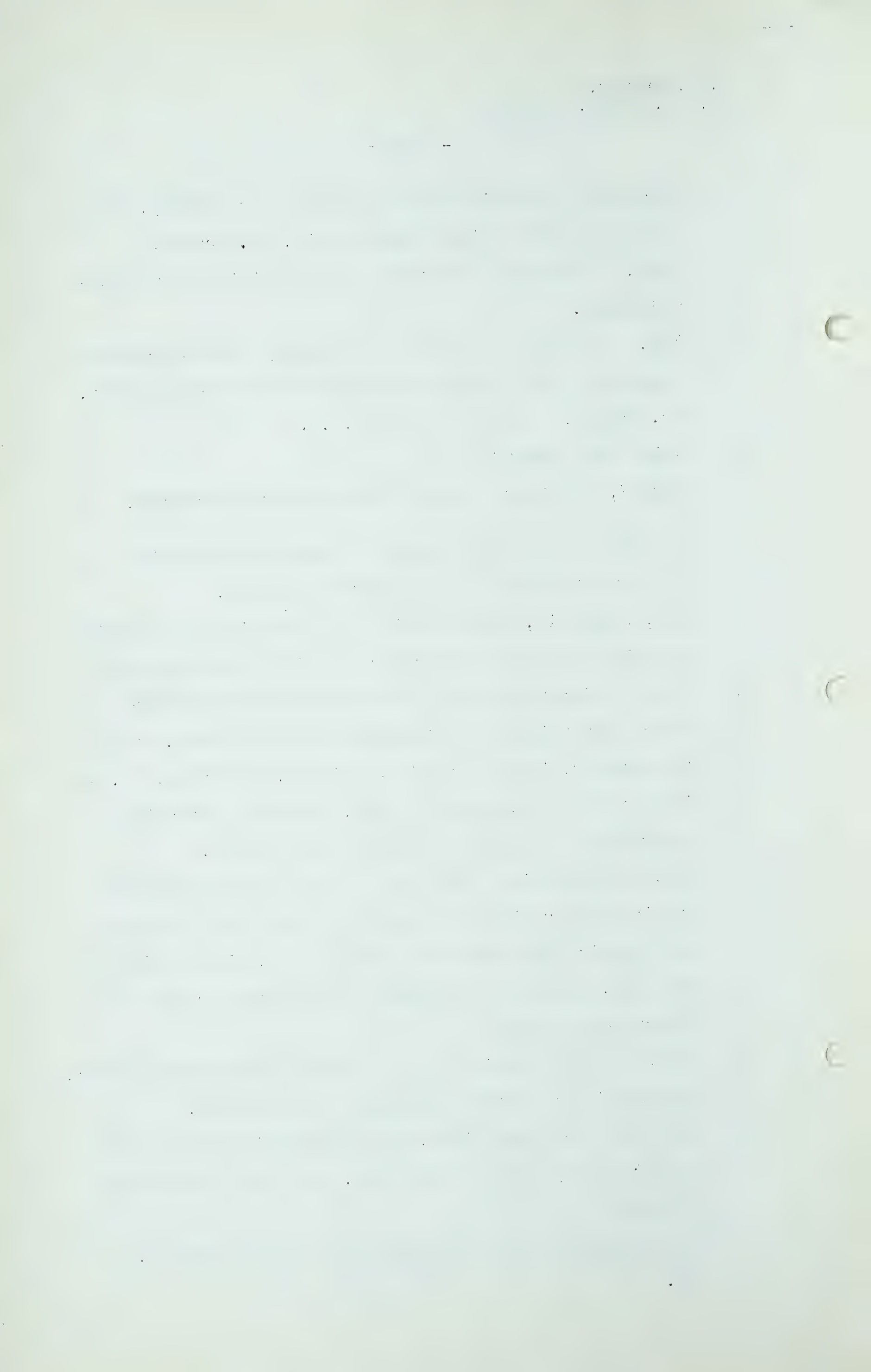
Q Yes. And assuming that there is sufficient exportable gas in this Province to provide for gas being taken to the Pacific Northwest and perhaps to a limited market in the East, you and the companies you represent have no objections to that?

A Well, our interest is in the Pacific Northwest in general, and mine is in British Columbia in particular.

Q You would like that first, but assuming it was possible to go both ways at the same time, you have no objection to that?

A If the Board should make findings in that direction.

Q Yes.



A. E. Grauer,
Cr. Ex. by Mr. Martland

- 1922 -

A Of course, that is all right.

Q And if it were possible for this Board, by the allocation of fields, to make possible export in both directions, that would be desirable, wouldn't it?

A I would think it would depend upon whether they made the allocation, if the people thought it was desirable. I do not know that I quite get your question.

Q I say, just backing up a point that you yourself made in answer to one question, Mr. Grauer, that the Peace River area would be a desirable source of gas for the Pacific Northwest for a number of reasons, you yourself, other things being equal, indicated that you would like to see it exported from that point?

A From British Columbia's point of view.

Q From British Columbia's point of view?

A Yes.

Q And if the Pacific Northwest area can be provided from that source of supply, leaving other areas available for shipment east, that is a good thing, isn't it, rather than just having shipment one way?

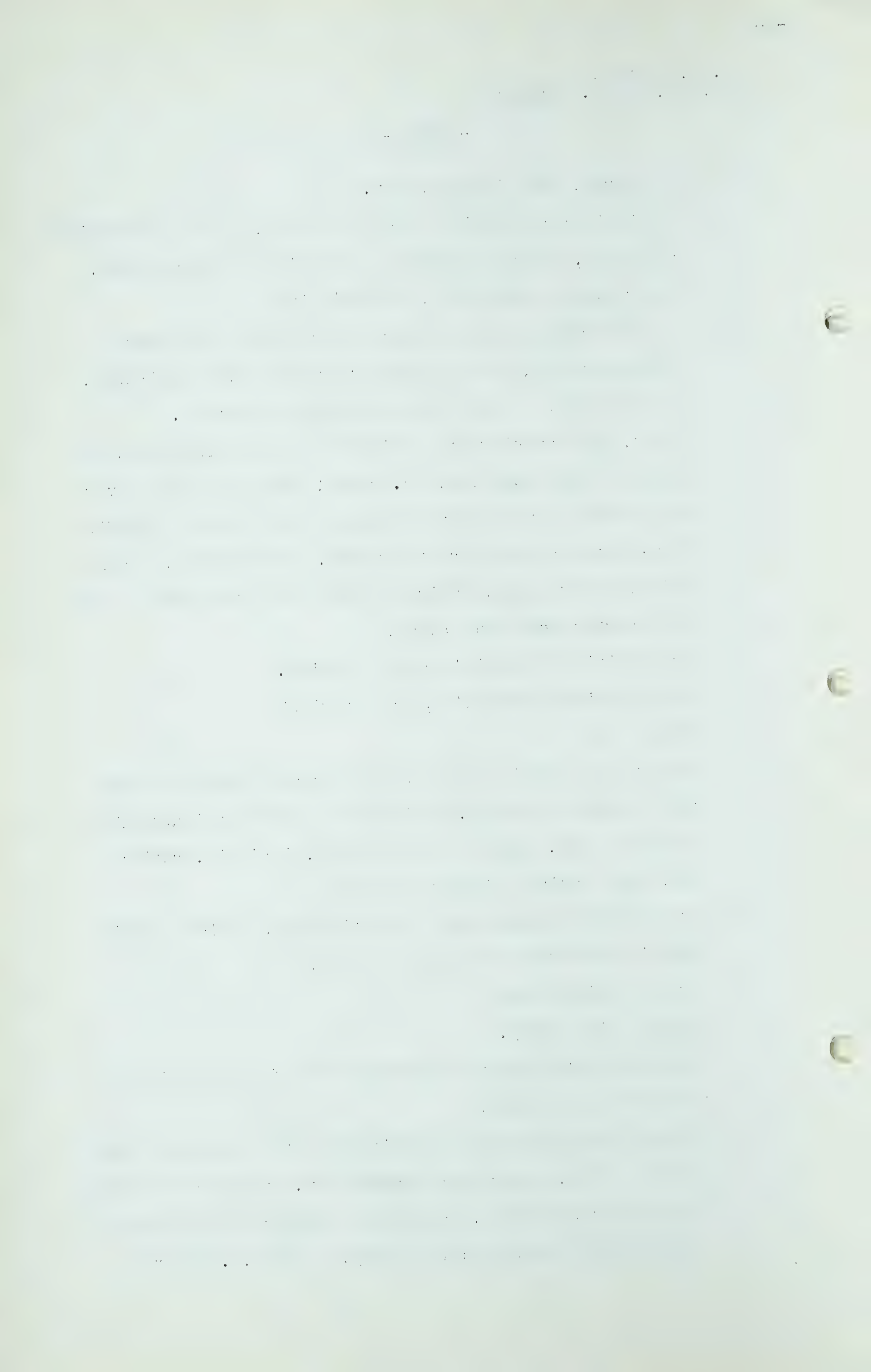
A If the Board should make those findings, as long as the Pacific Northwest were provided for.

Q You are quite happy?

A We are quite happy.

Q And the people that you represent here in this brief would be quite happy?

A I was given authority to submit that the gas should come west. Now, under your supposition, it would come into the Pacific Northwest, therefore I should think that the distributors would be quite happy. The B.C. Electric



A. E. Grauer,
Cr. Ex. by Mr. Martland
Cr. Ex. by Mr. Milvain

- 1923 -

would be.

Q Now, Mr. Grauer, just a couple of questions with regard to the B. C. Electric Company specifically. Is it your intention to use your manufactured gas plant for peak shaving purposes, has that been planned?

A That is in the cards, yes.

Q And can you tell me what that capacity would be?

A I could readily find it out for you.

MR. MASSIE: 9 million per day.

A 9 million cubic feet per day.

Q MR. MARTLAND: 9 million cubic feet per day?

A Yes.

.....

CROSS-EXAMINATION BY MR. MILVAIN:

Q Just a few questions, Mr. Grauer. I notice on looking at the letter which is exhibited at the end of your submission, that it refers to coal from Utah, Montana and Wyoming. Is there not also coal from Alberta used in the Pacific Northwest?

A Well, in British Columbia. . .

Q Pardon?

A In British Columbia we have some mines on the Coast.

Q Yes?

A Some mines in Eastern British Columbia also, and we also do take some coal from Alberta.

Q Yes. So that in addition to those three States that are mentioned, of Utah, Montana and Wyoming, the coal interests in both British Columbia and Alberta would be affected?

A If gas displaces coal, is that your implication?

A. E. Grauer,
Cr. Ex. by Mr. Milvain

- 1924 -

Q Well, they are affected in supplying present fuel requirements?

A Yes.

Q And I think also there may be coal from the State of Washington, or do you know?

A No, I do not know.

Q Whether that State supplies the coal to meet the present fuel needs of the Pacific Northwest?

A I do not know.

Q Now, I suppose you will agree, Mr. Grauer, that the coal industry has performed a useful function in supplying the fuel needs of the country?

A Oh, certainly.

Q And the coal industry is one that is needed for the proper economic and industrial development of both Alberta and British Columbia?

A Well, that is a general question. Any industry is needed if it fills an effective demand.

Q And I do not suppose you will argue for a moment that the coal industry is not meeting an effective demand?

A It certainly is meeting an effective demand.

Q And it is a vitally essential industry?

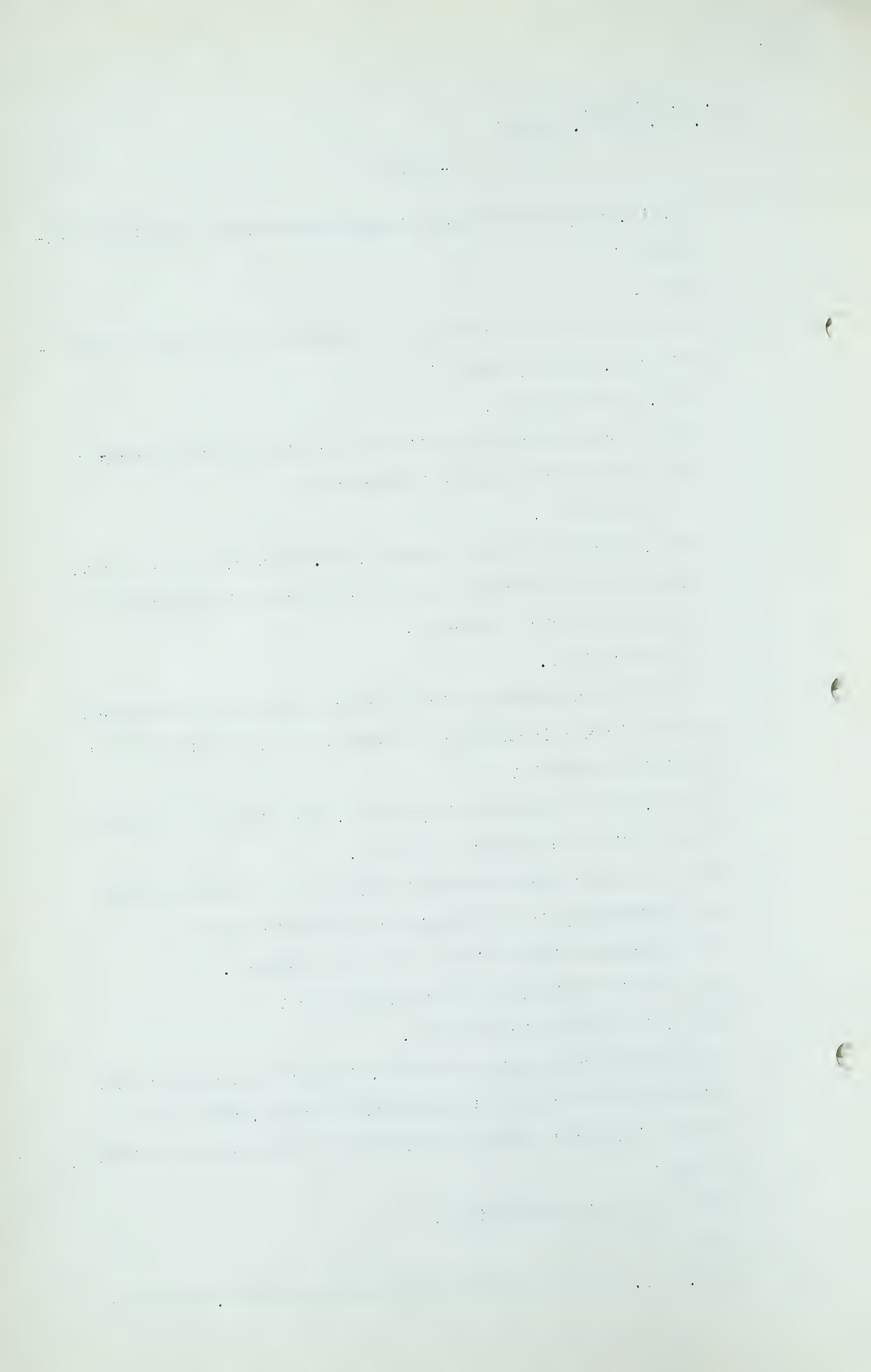
A Yes, it is a basic industry.

Q And you spoke of defence needs, if our defence needs were increased by our getting into another war, which we hope we won't, but the requirements for coal will unquestionably go up?

A Under war time conditions?

Q Yes?

A Oh, yes. I believe that is one point that Mr. Van Atten



A. E. Grauer,
Cr. Ex. by Mr. Milvain.

- 1925 -

probably had in mind, the long rail haul in the case of the Pacific Northwest would create very embarrassing problems under war-time conditions. I know in the last war our own company had got its total requirements from the mines on Vancouver Island, or before the last war, and under war-time conditions that coal was necessary for essential war-shipping, and one thing and another like that, and we could just get a small fraction of our requirements from that source. We had to go to much more distant sources, which, of course, put a strain on transportation, which could not stand too much strain anyhow, and had created a serious problem.

Q And the preservation of the coal industry in a healthy state is vital to the continued need of defence requirements?

A Everybody would like to see the coal industry remain healthy.

Q Yes. Now, did you make any survey having regard to the comparison of competitive prices of fuels in the Pacific Northwest?

A Well, I have not myself. I believe our company presented evidence on that point, Mr. Chairman.

Q I see. But you have not that information?

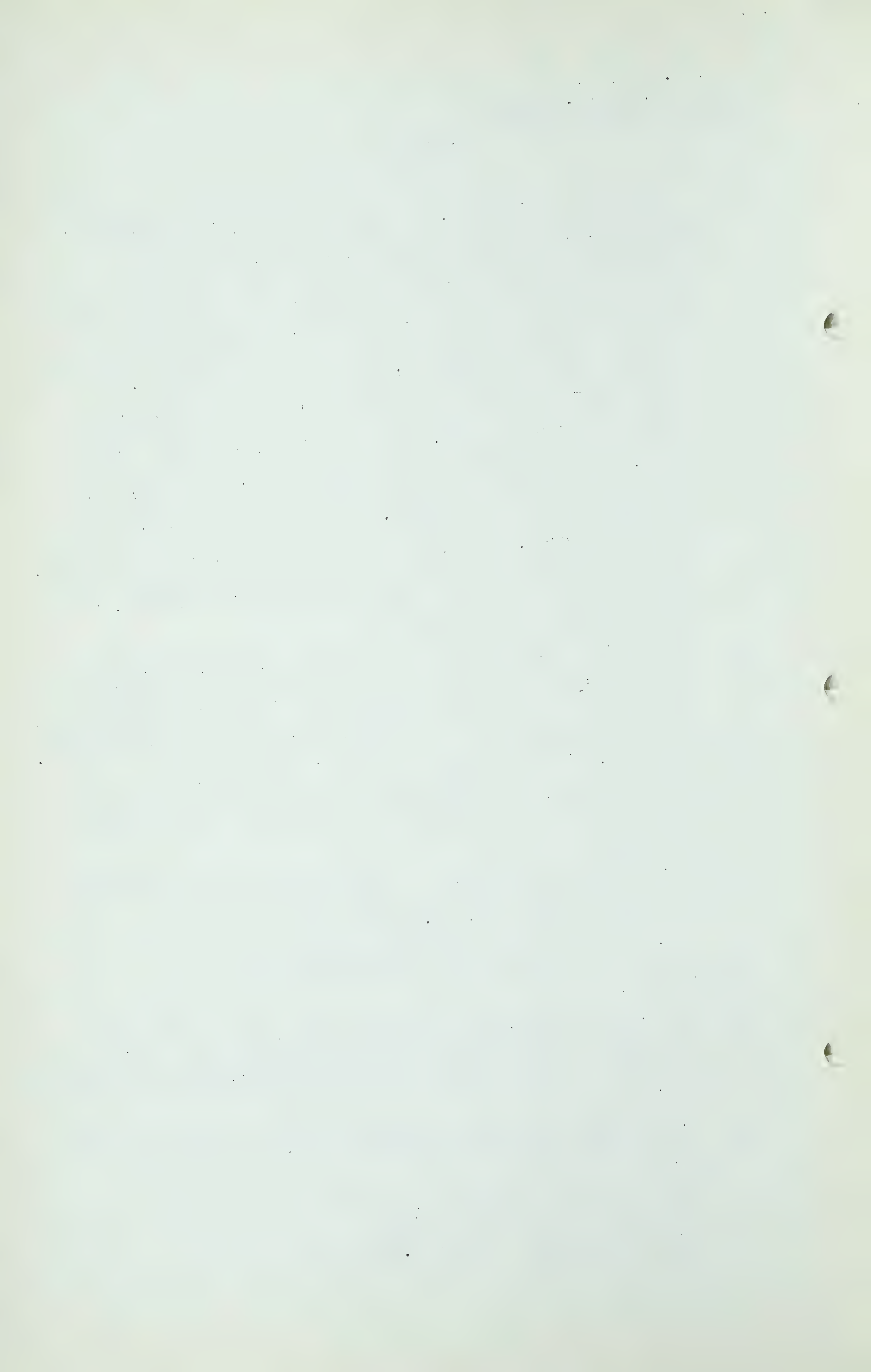
A No.

Q You see, Mr. Grauer, I came into this Hearing late too, so that I do not always know some of the things that happened before.

A Well, maybe I am more fortunate than you, I am going out early.

Q Perhaps we might make a trade?

MR. C. E. SMITH: We agree.



A. E. Grauer,
Cr. Ex. by Mr. Milvain

- 1926 -

Q MR.MILVAIN: Now, I am looking back for a moment at page 1 of your submission, Mr. Grauer. As I recall it, after you finished reading the first two paragraphs you then made some comments yourself and said that a certain number of companies had signed up for the use of gas, that two of them, I think, had signed contracts?

A Yes.

Q What companies were those?

A The Seattle Gas Company and the Portland Gas & Coke Company.

Q And was any price stipulated in those agreements?

A Well, there must have been. I do not know the price.

Q You do not know anything about the price?

A No.

Q I take it, too, from your submission and what you said, Mr. Grauer, that one of the concerns in supplying the defence industry is that if oil comes in by boat it may get knocked off by other warlike powers, and if you are shipping coal or other things in by rail, you might run into difficulties of that type?

A On the Pacific Coast especially, in the only war that seems to be possible, and we hope, of course, it will never occur, we would be particularly open to submarine attack on any shipping on the Pacific Coast.

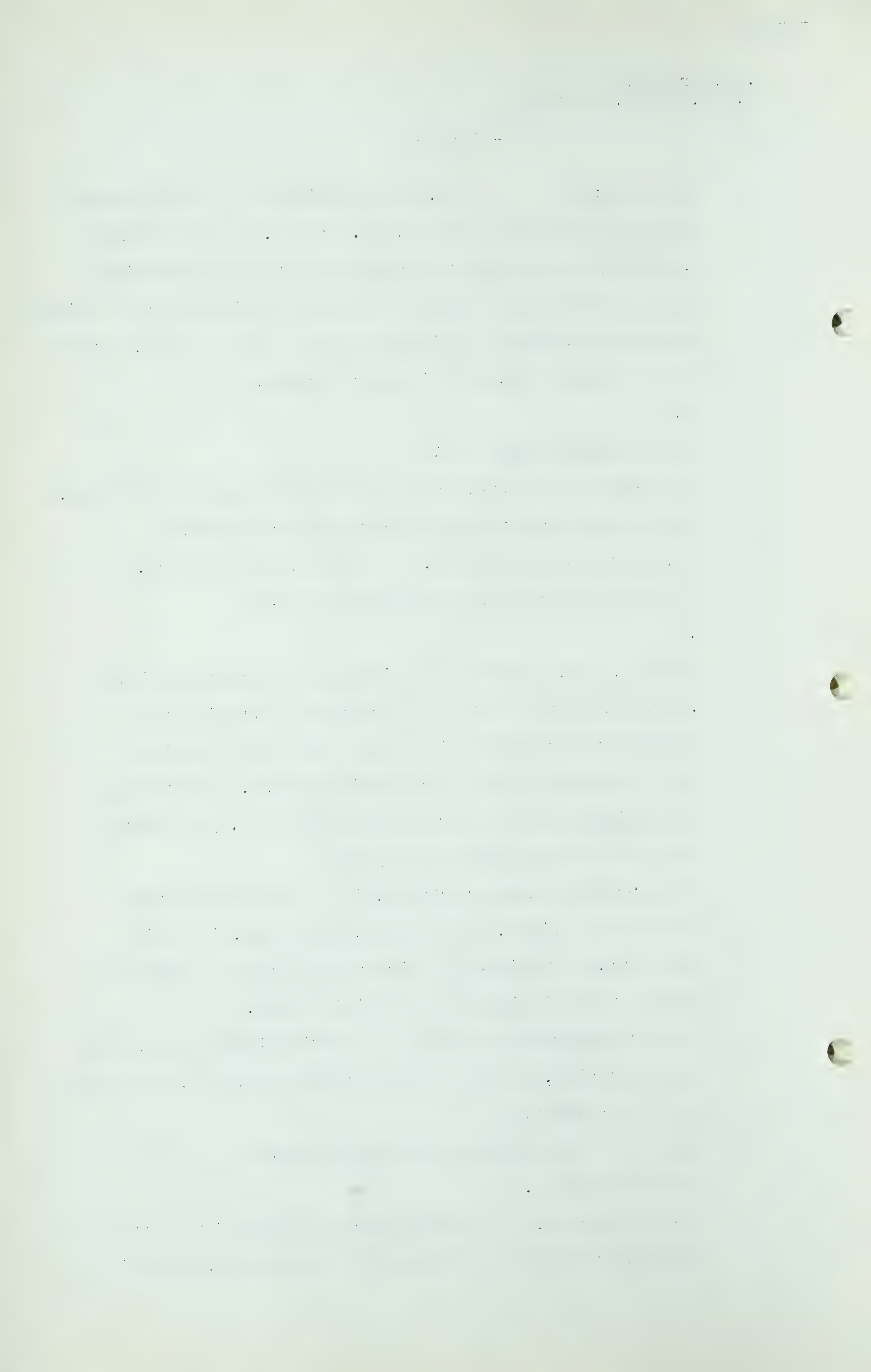
Q Was any consideration given to the advisability of moving those industries, other than the marine ones, to Alberta?

A Not that I know of.

Q Where the coal and the gas is right handy?

A Not that I know of.

Q If that were done, it would save the expense of the haul and relieve against the danger of enemy attack, would it



A. E. Grauer,
Cr. Ex. by Mr. Milvain
Cr. Ex. by Mr. S. B. Smith

- 1927 -

not?

A Well, it is pretty hard to pick up the Boeing plant in Seattle, which I think employs upwards of 30,000 people, and the nuclear fission plant at Hanford, and set them down in Calgary, desirable as that might be.

Q You mention the plant at Hanford; at the present time it is operating on fuels other than gas?

A Yes.

Q I believe fuel oil and coal?

A Well, now, I could not tell you exactly what. I imagine electricity would be in there too, but I could not be specific on that.

Q I think that is all, thank you, Mr. Grauer.

MR. TOLMIE: Well, Mr. Chairman, coming from that questioned part of Canada, Ontario, I would hesitate to ask this witness any questions that might incur the further accusation of inflaming the emotions rather than appealing to reason.

A Mr. Chairman, do not let him fool you; he is a fugitive from British Columbia.

MR. S. B. SMITH: May I ask one further question, sir?

THE CHAIRMAN: Yes.

.....

CROSS-EXAMINATION BY MR. S.B. SMITH:

Q Mr. Grauer, in talking about the possibility of taking gas from the northwestern part of Alberta, that is the Peace River country, and possibly northern British Columbia, to the Pacific Northwest, you are not suggesting, or I did not intend to suggest that the Spokane Gas & Fuel Company

A. E. Grauer,
Cr. Ex. by Mr. S. B. Smith
Cr. Ex. by Mr. C. E. Smith

- 1928 -

would support any such program, were you?

A No. I said that the only authority I have on behalf of these companies is the submission for gas coming west.

Q So that is obvious. . .

A I cannot go beyond that and speak for anything else.

Q So that you are not putting forward any such plans on behalf of the Spokane Company?

A No, I have no authority.

.....

CROSS-EXAMINATION BY MR. C. E. SMITH:

Q Just one question, Mr. Grauer, and I hate to labour it, on page 9, at the bottom of the page there, Mr. Grauer, having regard to what is said there,-

"The relatively short pipe line means that 1,000 BTU gas should be deliverable to the Pacific Coast cities by the pipe line company at an average price of about 32 cents per Mcf to distributors at a utility load factor of 70%."

Are we to understand, Mr. Grauer, from that, that the B.C. Electric cannot very well be interested in gas at a higher price than that, or am I going too far with when I suggest that?

A I think that goes a little too far. That is a price beyond which we would not like to go. It is always difficult to tell precisely how much of competitive markets you can get at various prices, but our sales people feel they can do a firstclass job at such a figure.

Q We are not, then, to make any assumption that that is the maximum price?

A. E. Grauer,
Cr. Ex. by Mr. C. E. Smith

- 1929 -

A Ceiling?

Q That that is the ceiling?

A No, that is not.

Q And when you said, going over the page,-

"Such a price would allow reasonable payment
to the producers",

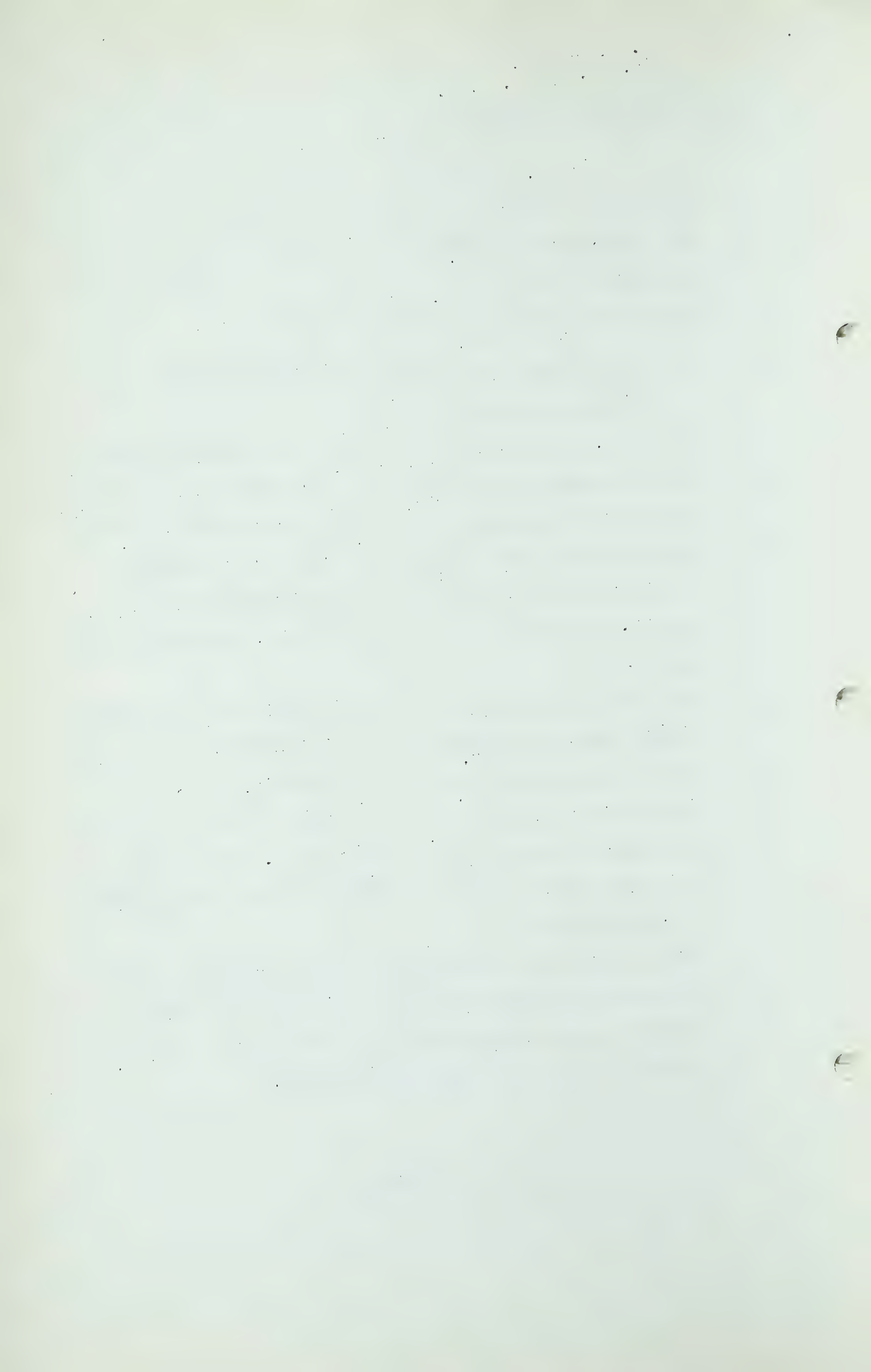
did you have any price in mind when you used that term?

A Well, no specific price in mind. There have been prices established in Alberta, I believe after Hearings, with regard to that sort of a price. There is no pressure, in other words, to give the producer a lesser price in order to make it up for the pipe line, or something like that.

Q Well, let me put it a little more definitely. I assume we will have a submission very shortly wherein there is a price contracted for, as I understand it, at $10\frac{3}{4}$ cents for the first 3 years, and it is raised by a quarter of a cent until it gets to 15, I think it is. Did you have some price of that nature in mind when you were speaking of the producer?

A Well, I would say a reasonable price to producers. The $10\frac{3}{4}$ -cent price is the price that I referred to that I thought had been established after Hearings in Alberta. I believe that it is reasonably customary.

(Go to page 1930)



A. E. Grauer,
Exam. by Mr. C.E. Smith.
Exam. by Dr. Govier.

- 1930 -

Q I can go further with you. The document I am referring to which is not yet an exhibit, but I assume it will be, is one to be submitted by the Northwest Natural Gas Company, that is, Mr. Nolan's client, and I observe in that a price of $10\frac{3}{4}$ which graduates up after three years. Did you have that in mind, for instance?

A Well, we did not have any specific range in mind. I believe in pipeline contracts it is customary to start with a certain price and that there is allowance made in subsequent steps for so-called amortization of the pipeline.

Q In other words, it depends on the contract he can make with the producer?

A That is what it comes to.

Q But that is somewhere around what you had in mind when you used the expression "reasonable price"?

A That would be a fair way of putting it.

Q And I think the 32 cents we are not to consider as the ceiling, I want to make certain of that?

A Yes.

Q That is all.

EXAMINATION BY DR. GOVIER:

Q Mr. Grauer, on the bottom of page 9 of your submission where you make reference to the 70 per cent load factor, can you tell me if that is intended merely to be a qualification of the 32 cent price or if that is intended to reflect the average load factor of the Pacific Northwest market?

A I believe it is the former. I am not a sales expert so

A. E. Grauer,
Exam. by Dr. Govier.

- 1931 -

I am quoting from recollection from our sales people.

Q That is, it should be linked directly to the 32 cents?

A Yes.

Q And if the load factor were different the price might be a little different, is that right?

A Yes. With that load factor, in the opinion of the B.C. Electric, what we would desire to see in terms of our analysis of our load.

Q Is that the load factor that you would be able to offer a supplying company?

A No, subject to correction. If we had one of our sales people I think my answer is "yes".

Q Does that apply to the entire group you have referred to as the distributors?

A I believe that is true, that generally speaking, in these calculations that I referred to earlier there was a 70 per cent load factor that was arrived at as suiting the distributors.

Q Thank you.

THE CHAIRMAN: Thanks, Mr. Grauer.

THE WITNESS: Thank you, Mr. Chairman.

MR. C.E. SMITH: I wonder might I make an explanation with regard to the submission of the Consolidated Mining and Smelting. Mr. Woodford was good enough to tell me on Thursday that he would be certain to be here on Thursday afternoon with his submission. I said, "That is a good idea, everybody will be able to get them." Unfortunately, as you know, Mr. Chairman, we adjourned after the morning session and if anybody did not get them

Statement by H. A. MacLean.

- 1932 -

it is possibly my fault to that extent. Mr. Woodford came around and there was nobody here, in other words. Probably that would explain why somebody did not get them if they have not got them.

THE CHAIRMAN: Could we have the representative of the British Columbia Government?

H. ALAN MacLEAN, having been first duly sworn, testified as follows:

I am the Assistant Deputy Attorney General of the Province of British Columbia and have been instructed to appear here on behalf of the Government by the Attorney General of the Province, the Honourable Mr. Wismer. I wish to express to the Board the appreciation of the Government of British Columbia for the courtesy extended in permitting me to make a further statement to the Board with respect to the export of natural gas from Alberta.

It will be recollected that the Honourable Mr. Gordon S. Wismer, Attorney General, appeared before the Board on February 6th, 1950, and made a statement on behalf of the Government of British Columbia. At that time Mr. Wismer stated:

"We are, and have been, ever since the construction of gas pipelines has been under consideration, strongly supporting the proposal that such a line should be built from Northern Alberta into and through British Columbia and thence, if sufficient gas is available, to the Pacific Northwest States of the United States of America.

Statement by H.A. MacLean.

- 1933 -

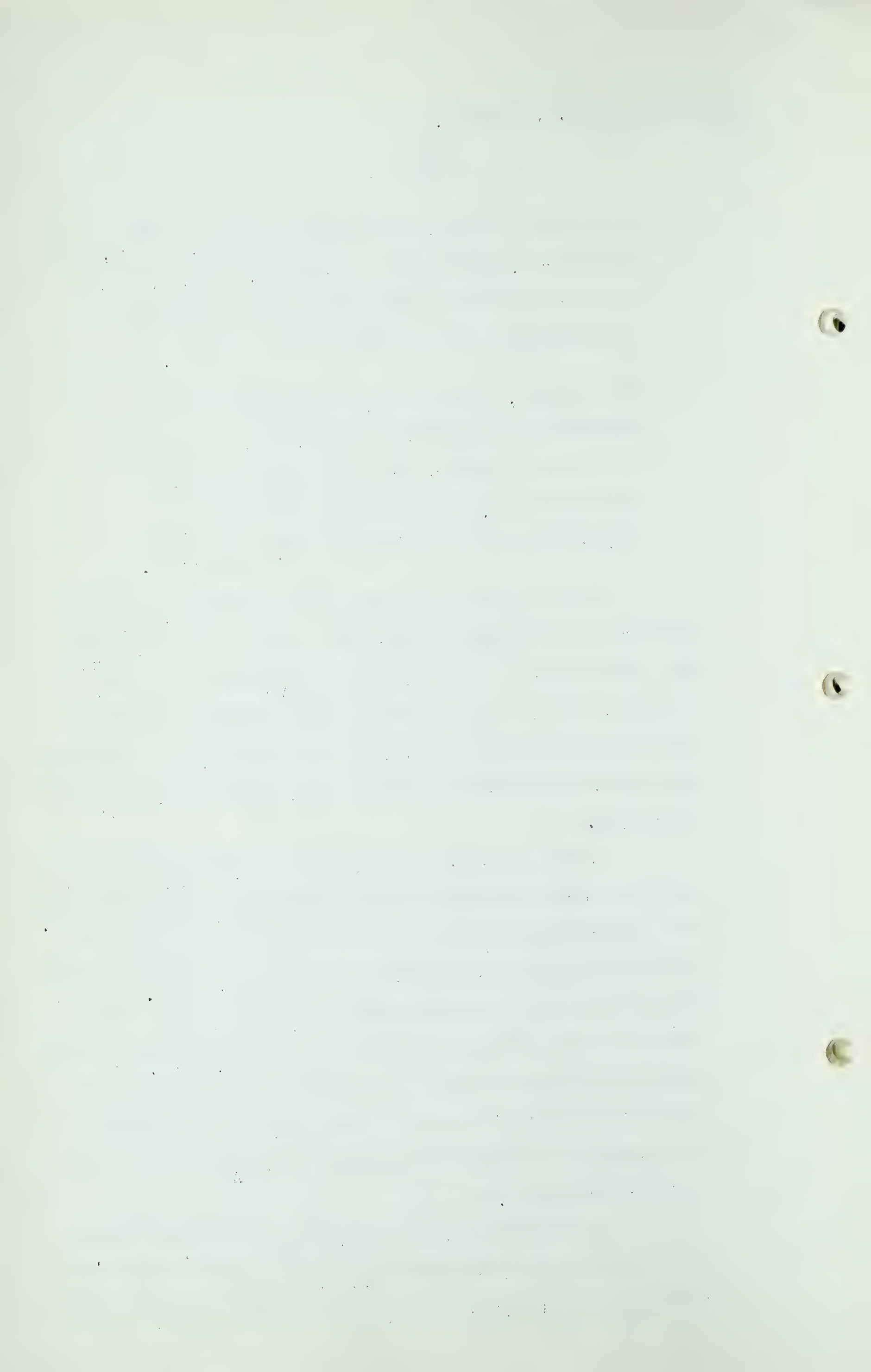
"As I stated before the Transport Board, we are, of course, assuming that it will be shown before the proper tribunal that this route is feasible and practicable as we understand it to be.

This route, if followed, will assure that the domestic and industrial requirements of the people of British Columbia will be a matter of first consideration, and it seems to us/that this objective cannot be reached in any other way."

Since February of last year the members of the Government of British Columbia have followed the oil and gas developments in the Province of Alberta with great interest, and in common with all other Canadians are very pleased at the success of such developments and the benefits and increased prosperity which are accruing and will accrue to Alberta.

There has been accelerated exploration for oil and gas in the Province of British Columbia during the past year. Such exploration was and is being carried out in the Peace River area in the northeastern part of the Province. Several gas wells have been discovered and very recently there has also been a discovery of oil near Fort St. John. These developments intensify the interest of the Government of British Columbia in the matter of a selection of a route for a pipeline transmitting gas produced in Alberta to the Pacific coast points.

As already indicated to the Board by Mr. Wismer, it is felt by the Government of British Columbia that the interests of the Province of British Columbia would be best



Statement by H. A. MacLean.

- 1934 -

served by the Alberta gas being transmitted to consumers in British Columbia directly to British Columbia markets rather than such markets being served by deliveries at the end of a pipeline which is built through the United States.

The Government of British Columbia also is mindful of the fact that the route of a pipeline from the Peace River area of northern Alberta through the interior of British Columbia will make available to the residents of cities and towns in the interior, and the industries in operation there, a source of fuel which will relieve the hardships imposed upon such residents and the operation of industry therein arising out of the high cost of fuel oil and coal transported to such centres.

It is also pointed out that the development of natural gas resources of Alberta in that part of Alberta contiguous to the potential oil and natural gas lands of British Columbia, (which would be encouraged by the building of the pipeline from the Peace River area,) will facilitate exploration for oil and gas in British Columbia. Such a pipeline would also serve to make available the oil and gas produced in British Columbia for use in the increasing markets for such commodities on the Pacific Coast along with the gas and oil produced in Alberta.

The interest of the Government of British Columbia in the matter of routes for oil and natural gas pipelines has been summarized and set forth in the Resolution of the Legislative Assembly which was passed unanimously at the recent session of the Legislature. This resolution is found in the Journals of the Legislative Assembly of the Province of British Columbia, 1951, at page 71. I read,

Statement by H. A. MacLean.

- 1935 -

if I may:

" RESOLUTION PRESENTED AND ADOPTED BY THE
BRITISH COLUMBIA LEGISLATURE.

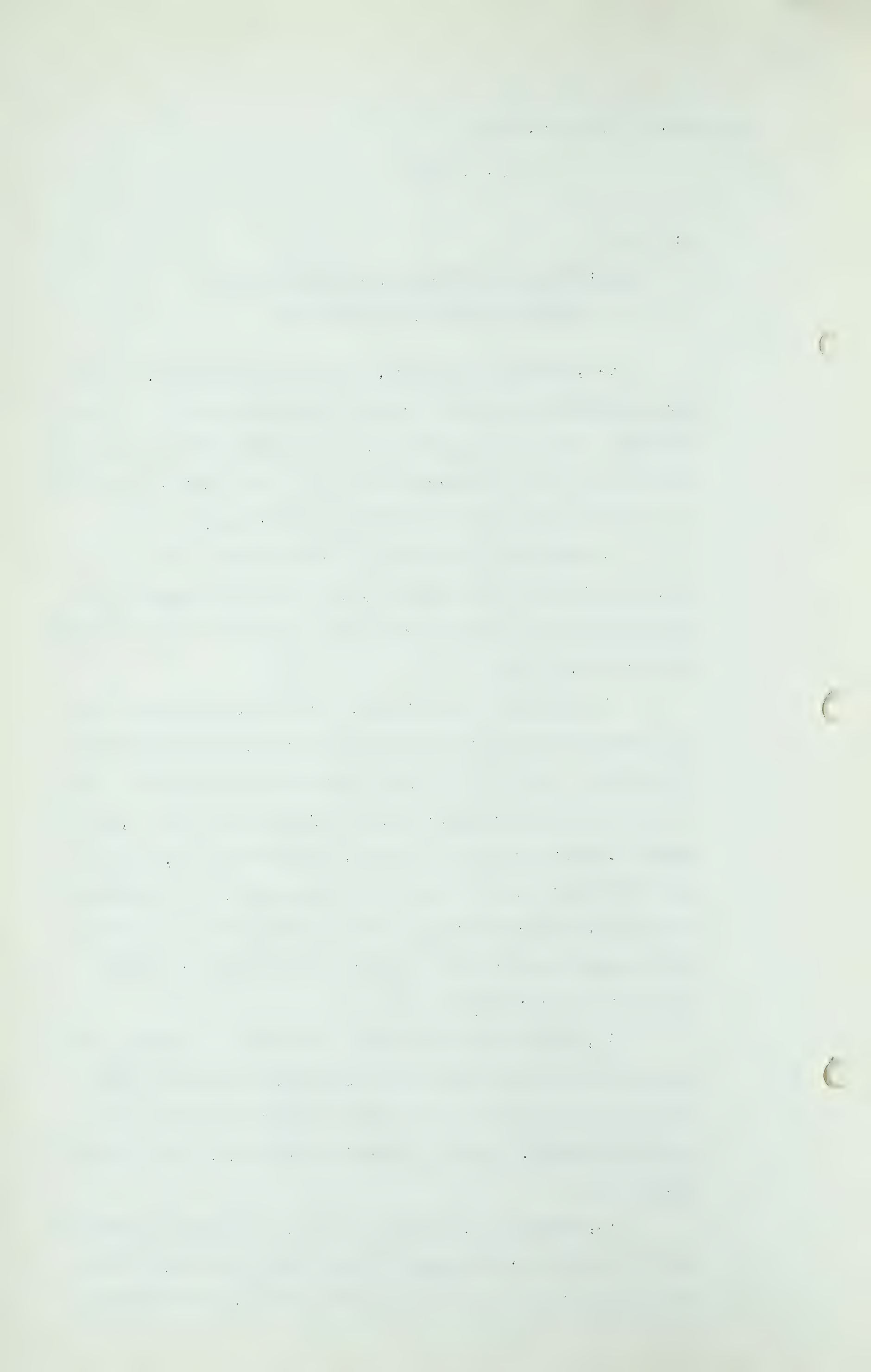
WHEREAS, this Legislature, at its last Session, unanimously passed a resolution urging adoption of an all-Canadian route through the Yellowhead Pass for the proposed transmission of natural gas from the gas fields of Alberta to Vancouver and other British Columbia points; and,

WHEREAS, important gas discoveries have since been made in the Peace River area of Alberta and British Columbia which gas can best be marketed via a route through the Pine Pass; and,

WHEREAS, the Alberta Petroleum and Natural Gas Conservation Board has recommended in its Interim Report of January 1951 (1) that the only gas available for export is the gas lying beyond economic reach of Alberta consumers, which includes the gas reserves of the Peace River area, and (2) that no gas found in the major gas fields lying in that part of the Province from the Edmonton area south to the International Border could be allocated to a market outside of the Province; and,

WHEREAS, the interests of Canada as a whole will best be served if natural gas from the Peace River areas of Alberta and British Columbia is transmitted to its closest markets, namely, British Columbia and the Pacific Coast; and,

WHEREAS, it is vital that the maximum encouragement be given to the discovery and development of the oil and gas resources of this Province and to the industrial



Statement by H. A. MacLean.

- 1936 -

"development of the Interior of the Province; and,

WHEREAS, in view of the foregoing facts the route which best serves the interests of this Province and the Dominion as a whole is the aforesaid Pine Pass route, and such pipeline route having been proposed; and,

WHEREAS, any proposed crude oil pipeline to the Pacific Coast should, in the interests of the Province, follow an all Canadian route, and at the same time provide for the marketing of oil found in this Province; and,

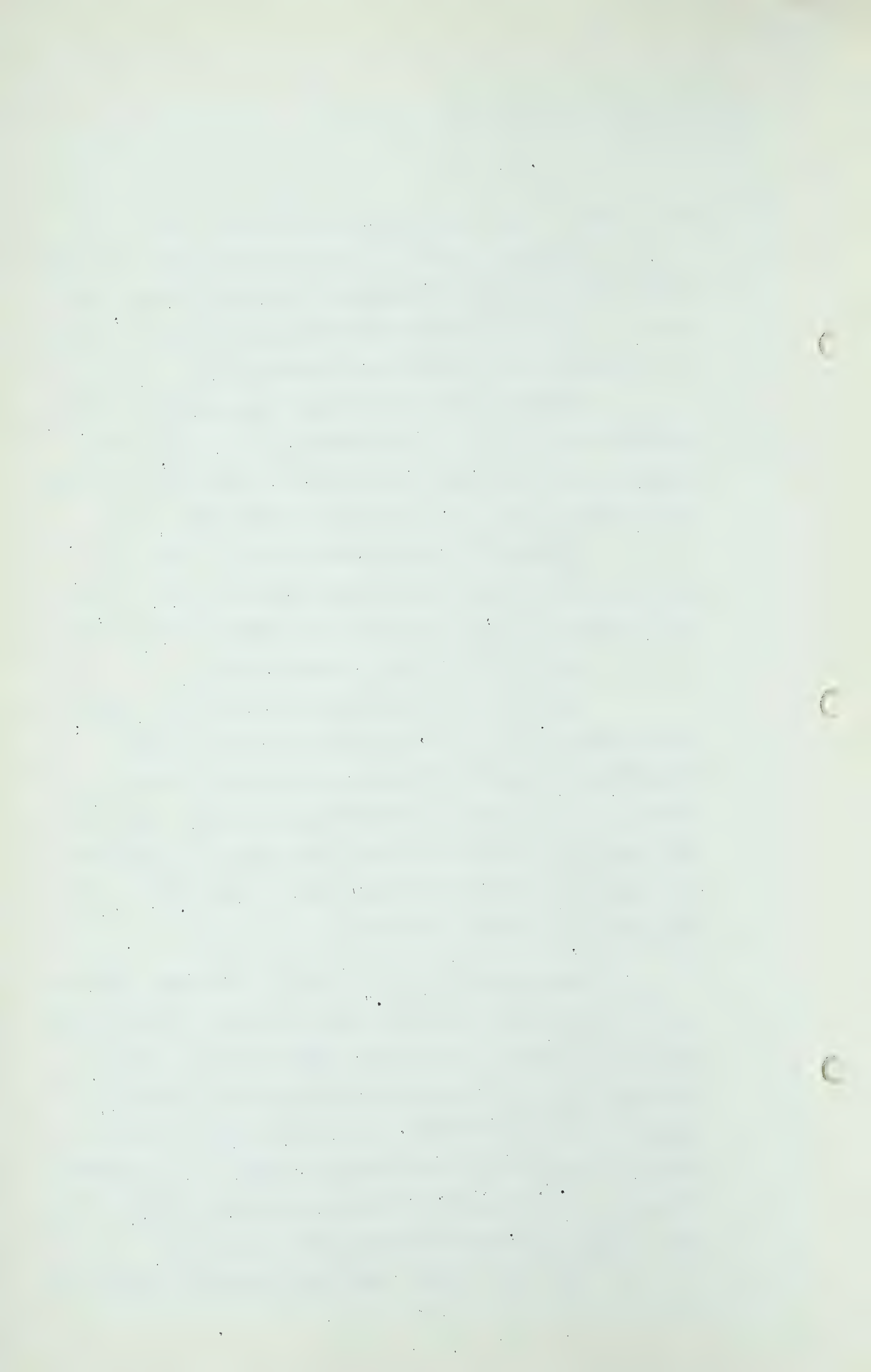
WHEREAS, it is proposed to build a crude oil pipeline from Northern Alberta to Vancouver via the Pine and Yellowhead routes to provide for marketing such oil;

NOW, THEREFORE, BE IT RESOLVED THAT:

This Legislative Assembly urges upon the appropriate authorities in the interests of both British Columbia and Canada the adoption of (1) The Pine Pass route for the natural gas transmission pipeline, and (2) the combined Pine and Yellowhead Pass route for the crude oil pipeline, which will provide for the marketing of oil discovered in British Columbia."

What I have to say is really fairly well summarized in the resolution of the House from which all my authority to make representations flows. I may say that I have listened with close attention to the brief presented on behalf of the B.C. Electric and several American public utility corporations, and in view of some of the arguments advanced I think I should attempt to make the position of the British Columbia Government perfectly clear.

And that is this, that the Government of British



Statement by H. A. MacLean.
Exam. by Mr. Goodall.

- 1937 -

Columbia clearly recognizes that the primary concern of this Board is that of making provision for the natural gas requirements of the people of Alberta. It also realizes that the Provinces to the east of Alberta are interested, as British Columbia is, in the matter of export from Alberta of any gas surplus, surpluses to the needs of Alberta that may be available. It is the hope of the Government of British Columbia that this Board will make it possible to allocate such surplus gas so as to satisfy the requirements of both the consumers in the Provinces to the east and the consumers in the Province of British Columbia.

THE CHAIRMAN: Does anyone wish to question Mr. MacLean? Thanks, Mr. MacLean.

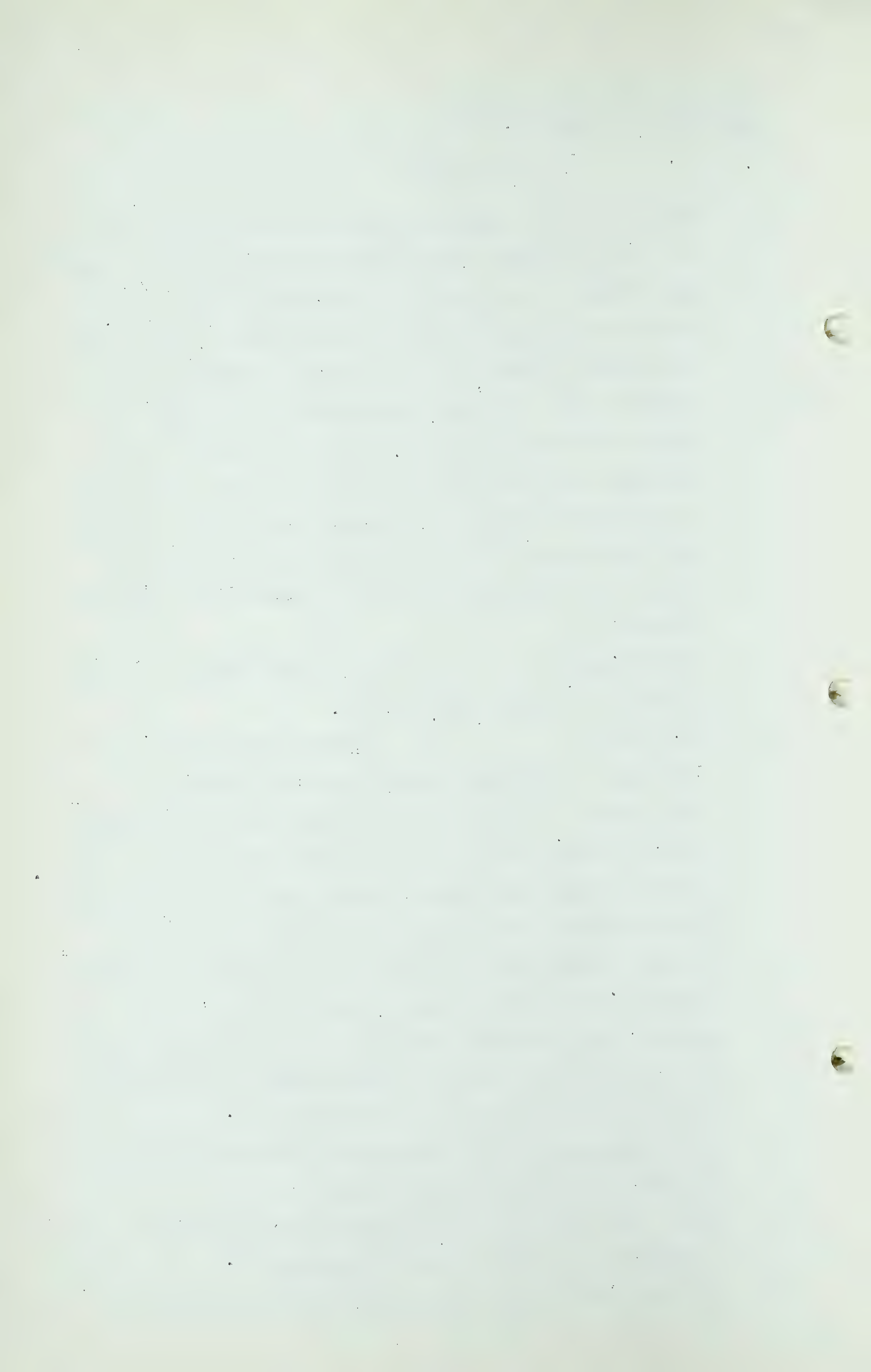
Q MR. GOODALL: This Pine Pass route, does that take in very many communities in the interior?

A Yes, it will. It will go down through the new -- approximately the Pine Pass route is a route which is followed by our new John Hart highway which is practically completed. It approximately runs between Dawson Creek and Prince George. Prince George is quite a considerable industrial area, and then further down, 75 miles or so, there is Quesnel where there are prospects of a pulp industry, and there would seem to be fairly good prospects for the use of gas in the development of the country.

Q They would not be able to supply the Consolidated plant at Trail on that route, would they?

A Well, not that route, but my instructions are that a branch from the route would be feasible.

Q You were not figuring on by-passing Trail altogether?



H. A. MacLean,
Exam. by Mr. Goodall.
Statement by B. P. Sutherland.

- 1938 -

A Certainly not.

Q I was beginning to wonder if Trail was in British Columbia.

A We never forget that.

Q That is all, thanks.

Q MR. C.E. SMITH: Before you leave, Mr.
MacLean, what was the date of the House resolution?

A That was March 28th, 1951.

Q Thank you, Mr. MacLean.

A It is found at page 71 of the Legislative Journals of that
year.

MR. NOLAN: Mr. Chairman, my concern was
about Trail and that subject has been gone into.

MR. C.E. SMITH: I do not think there is any-
body actually representing the Consolidated Mining and
Smelting from my profession. I think there are plenty of
good representatives here. I do not think it is Mr.
Woodford himself.

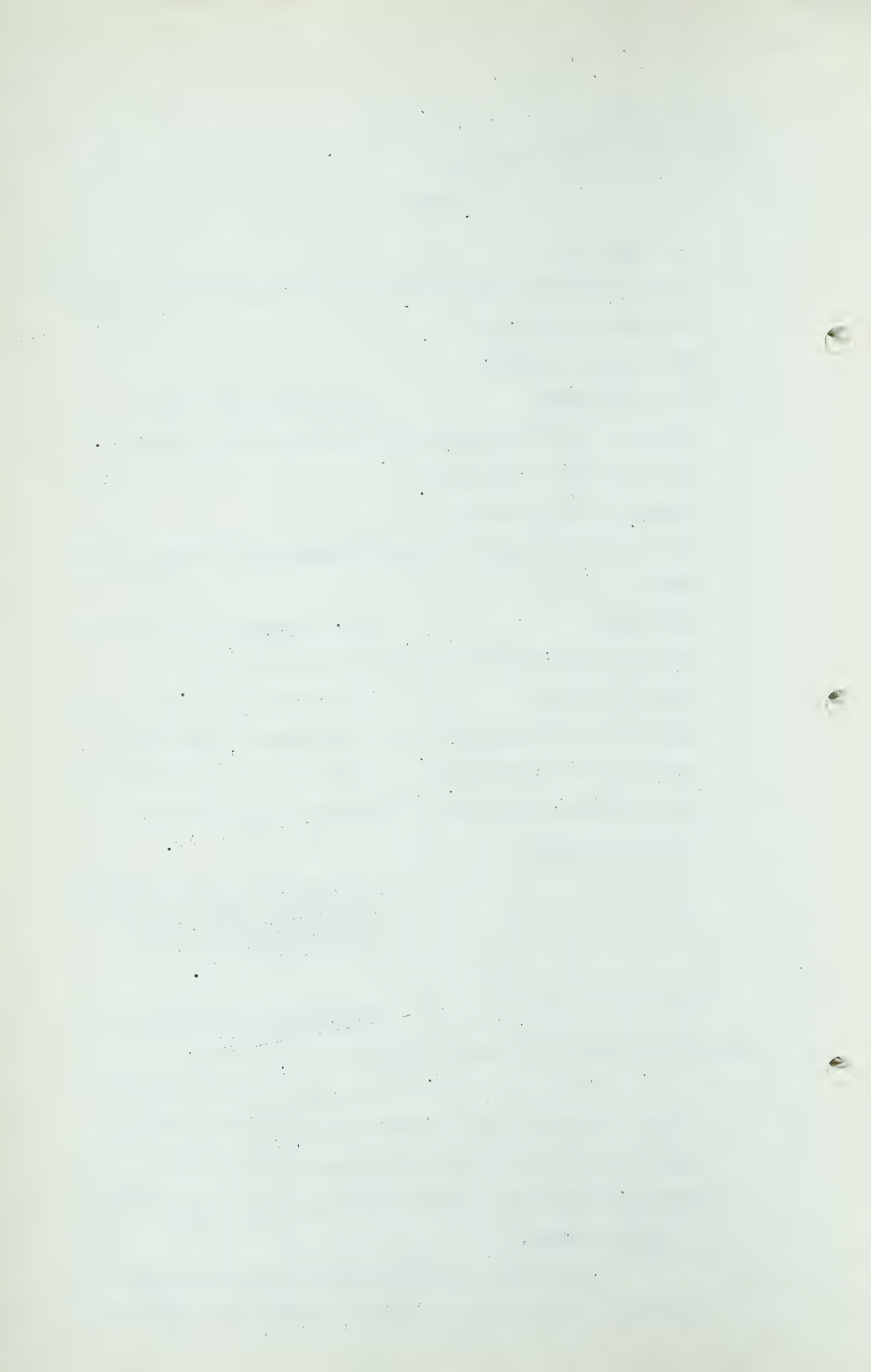
SUBMISSION OF CONSOLIDATED
MINING AND SMELTING COMPANY
OF CANADA LIMITED PUT IN
AND MARKED EXHIBIT 60.

DR. BRIAN P. SUTHERLAND,

having been first duly sworn, testified as follows:

Mr. Chairman and Members
of your Board, my name is Brian P. Sutherland, Adminis-
trative Assistant to the Vice President and General
Manager of the Consolidated Mining and Smelting Company
of Canada Limited.

The Consolidated Mining and Smelting Company
of Canada Limited has, on previous occasions, appeared



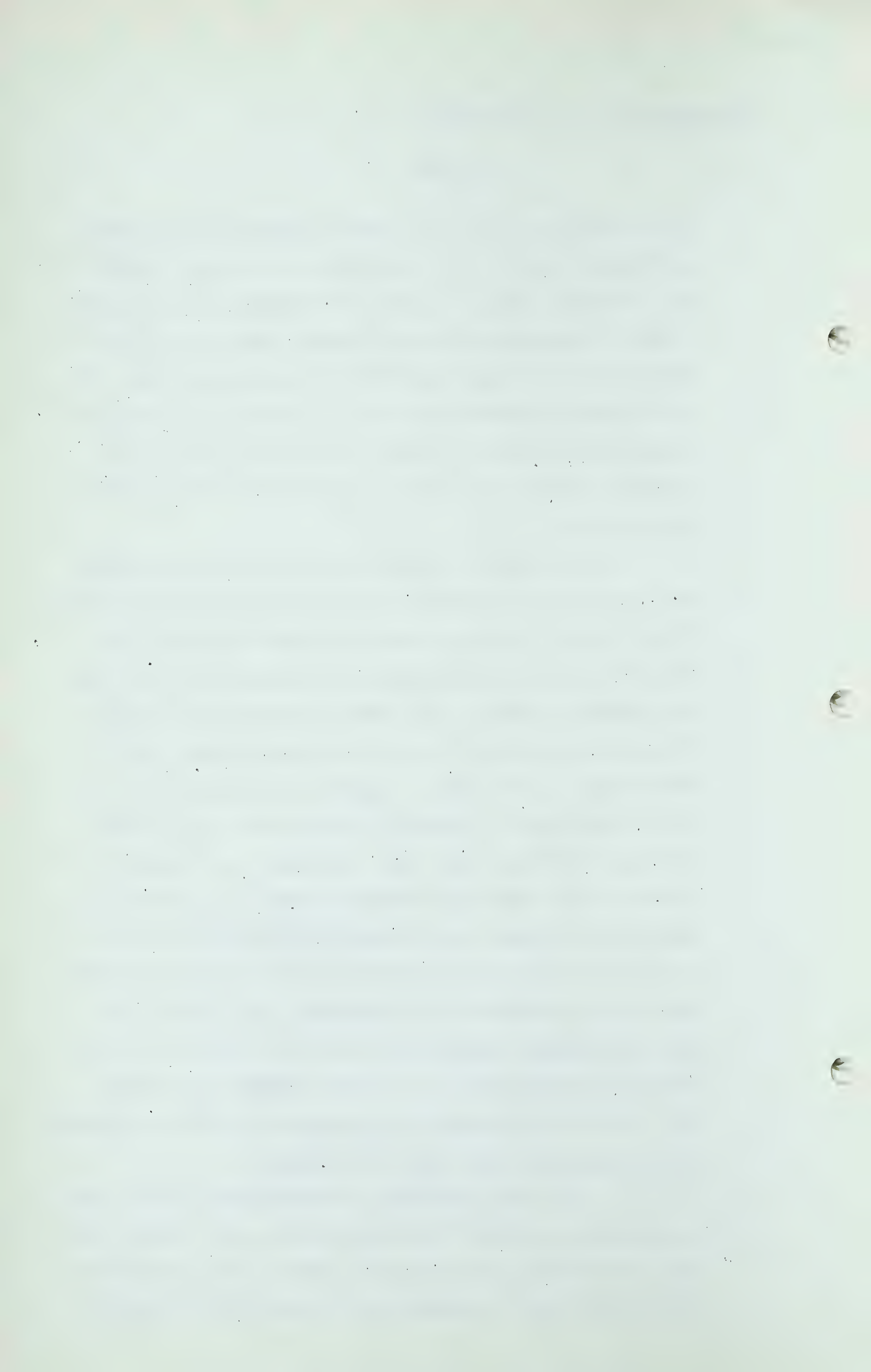
Statement by B. P. Sutherland.

- 1939 -

before this Board to give details concerning how natural gas could be used in its operations in British Columbia and how much could be so used. The Company is at present a user of large quantities of natural gas at its plant in Calgary and has every expectation of continuing this use. This present submission does not pertain to the Company's Alberta operations but to its operations at Trail and Kimberley, B.C., for which it is interested in securing natural gas.

The Company operates mines in British Columbia and other parts of Canada, the Sullivan mine near Kimberley, B.C., being by far the largest and most important. The Company's principal metallurgical and chemical operations are located at Trail, B.C., and constitute the largest industrial enterprise in all of Western Canada. At the metallurgical plant which is probably the largest of its kind in the world, a variety of metals are smelted and refined, including lead, zinc, cadmium, tin, bismuth, silver, gold, indium and antimonial lead. In addition to metals, the Company also produces very large quantities of sulphuric acid and anhydrous ammonia which are chiefly used in the manufacture of commercial fertilizers. In 1950 the Company employed over 8,500 men and women, most of them connected with the British Columbia operations. More than 32,000 persons in communities in British Columbia are directly dependent upon the Company.

Since the outbreak of hostilities in Korea the demand for non-ferrous metals produced by the Company has been considerably strengthened. Zinc is in particularly short supply and in common with a number of other metals



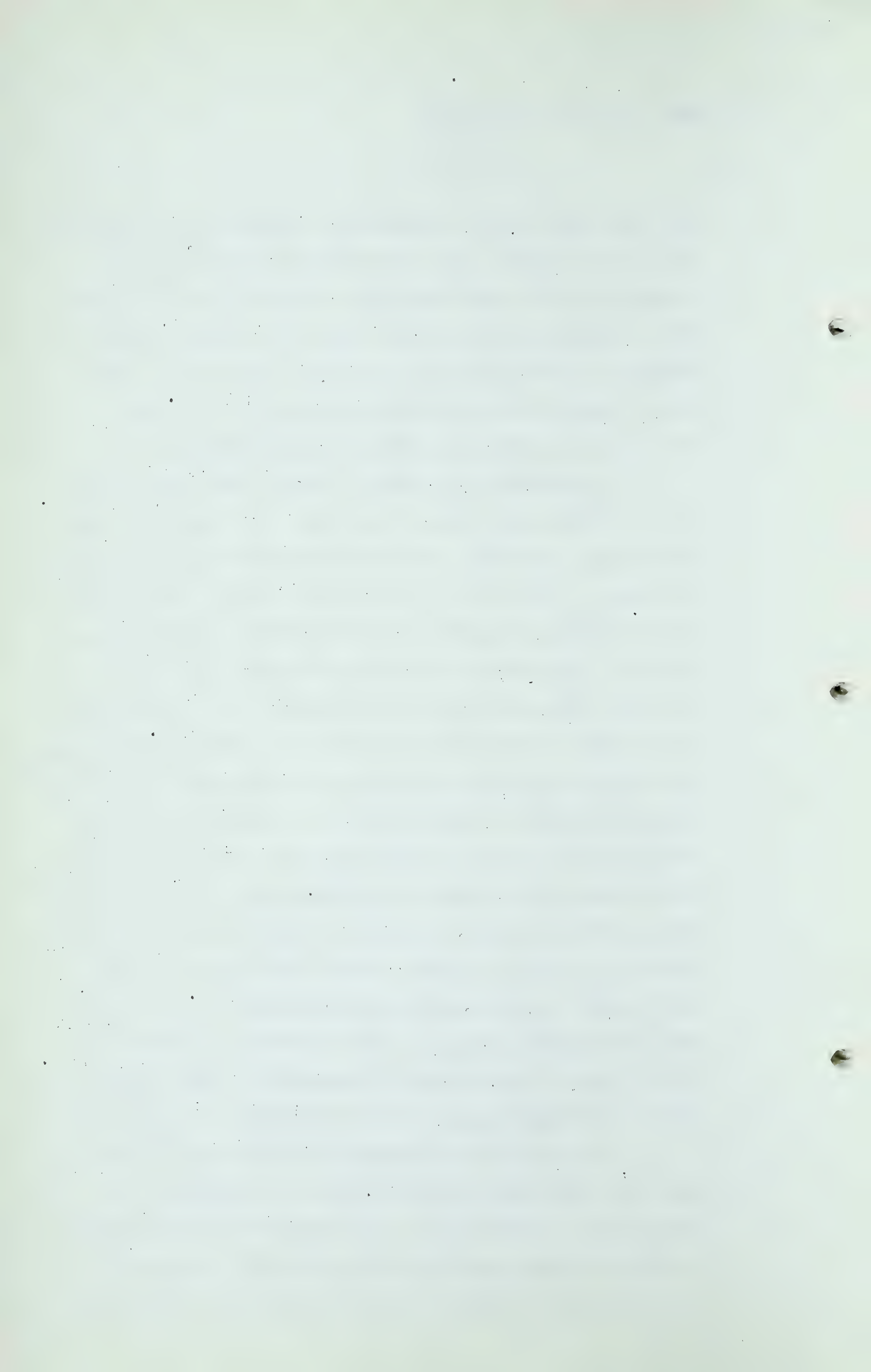
Statement by B. P. Sutherland.

- 1940 -

has been placed under international allocation as vital to the defence effort. The lead and zinc produced by the Company are sold almost entirely in North America and the United Kingdom at the present time. The demand for the Company's fertilizer products is also very strong. The present markets for these products are chiefly North America and the Hawaiian and Phillippine Islands.

The principal fuels now used by the Company at Trail and Kimberley are coal and oil. The coal comes from mines in the Crowsnest area of British Columbia and Alberta. The source of the oil has varied considerably over recent years. During the past summer practically all was shipped in by rail from Vancouver refineries which were using imported crude. At the present time only about one-third of the total consumption comes from Vancouver, the remaining two-thirds being shipped from Alberta refineries. Assuming a suitable price, it is believed that practically all the oil and about one-half the coal now used could be replaced with natural gas as soon as the latter can be made available and necessary equipment installed. The replacement of most of the rest of the coal with natural gas is possible but would require some research and development work and perhaps considerable change to plant equipment. However, it is believed to offer promise of success and would receive serious consideration as soon as a gas supply is assured.

In the previous submission to this Board dated May, 1950, the Company stated potential consumption of natural gas in some detail. There have been some changes in operations and plans since that time but except for some reduction at Kimberley the total forecast consumption



Statement by B. P. Sutherland.
Cr. Ex. by Mr. Milvain.

- 1941 -

of gas is substantially the same. In round figures present estimates are: at Kimberley $\frac{1}{2}$ billion cubic feet per year, and at Trail $1\frac{1}{4}$ billion cubic feet per year readily applicable plus 2 billion cubic feet for slag fuming if the process is developed. In addition, $1\frac{1}{2}$ billion cubic feet or more might be used at Trail in due course for other purposes in which gas is a raw material. It is also still true that most of the gas mentioned would be consumed at a substantially uniform rate regardless of weather conditions, so that the Company is a prospective customer for large quantities of gas at a high load factor for many years.

THE CHAIRMAN:

Does anyone wish to question

Dr. Sutherland?

CROSS-EXAMINATION BY MR. MILVAIN:

Q Just a few questions, Dr. Sutherland. At the present time I gather you are using a lot of coal at your B.C. plants?

A Yes, sir.

Q Can you tell us at what prices you get coal?

A Yes, I can give you a general statement regarding that.

Q Yes?

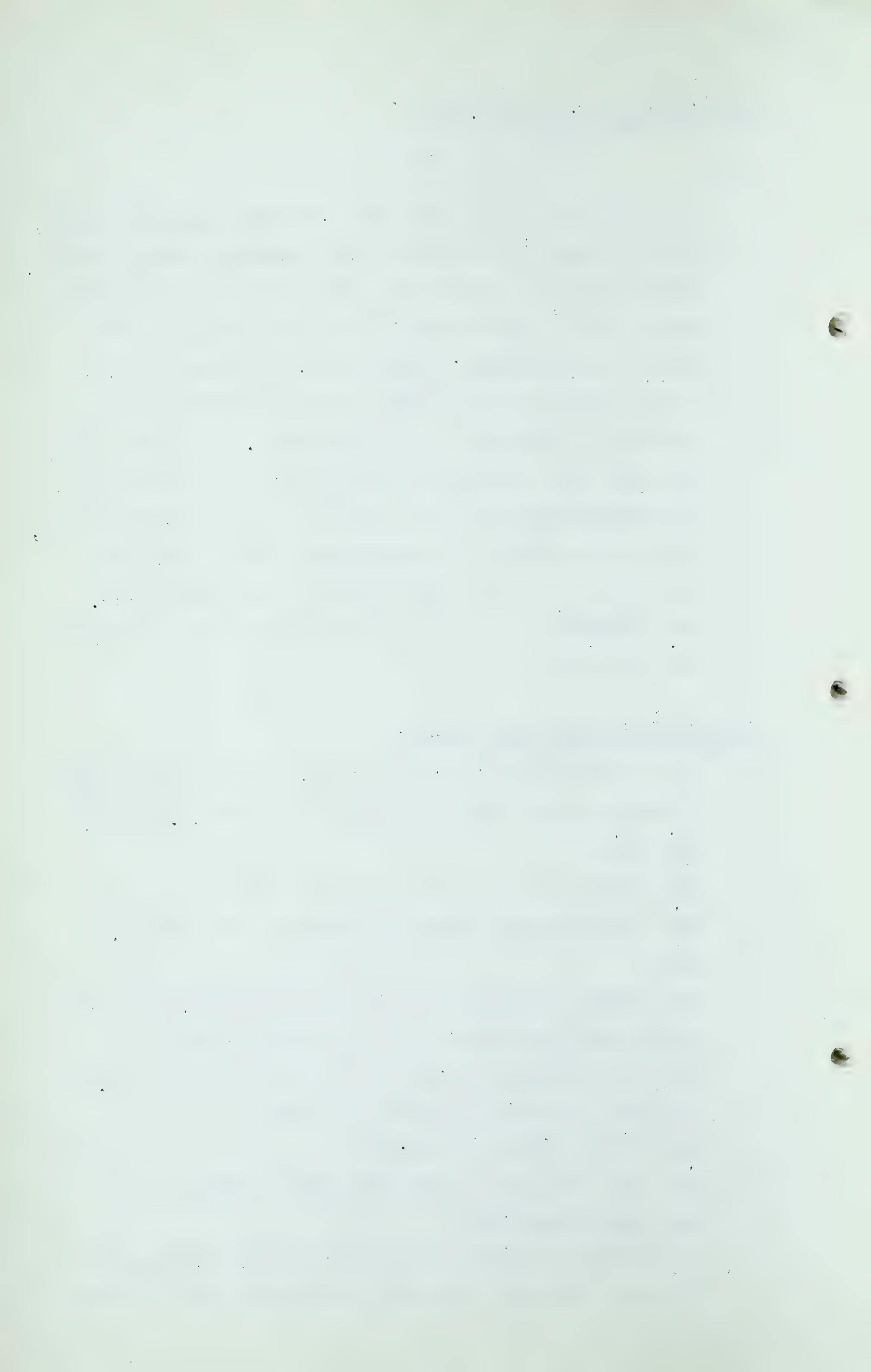
A The largest proportion of our coal is slack coal, most of which comes from Alberta. The price F.O.B. cars at the mines is a little over \$5.00 per ton at the present time.

Q And what is the Btu. value of that coal?

A About 11,500 Btu.'s per pound.

Q Now, the coal that you are using now is being used for what general purpose?

A Being used as a source of heat in our metallurgical and chemical operations and also as a reducing agent in some



B. P. Sutherland,
Cr. Ex. by Mr. Milvain.

- 1942 -

metallurgical operations.

Q Would that be true in both Trail and Kimberley?

A At Kimberley plant, coal has been entirely used as a source of heat.

Q For heating boilers?

A For heating boilers and also for drying concentrates.

Q That, you say, is at your Kimberley plant. Is it similarly used at Trail?

A Yes, coal is used at Trail for raising steam, drying various concentrates and reducing metallurgical operations.

Q If gas were being used, would it be used for the same processes as coal is now used, for boiler heating?

A Yes, it would, in part.

Q And for drying purposes?

A That is right.

Q What percentage of your present coal is being used for boiler fuel?

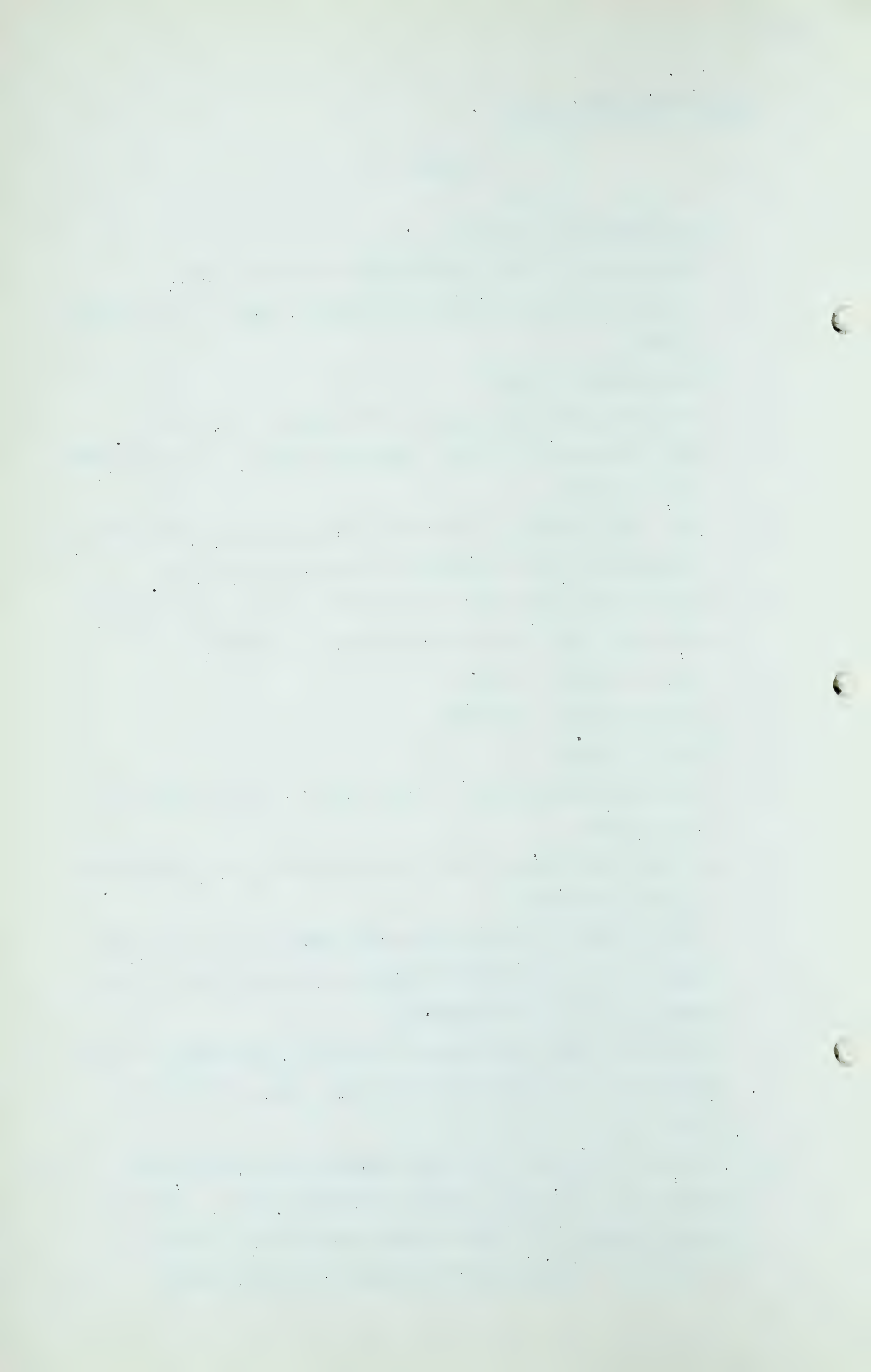
A At the Trail plant, about 20 per cent at the present time.

Q And at Kimberley?

A I do not have an exact figure for Kimberley but the percentages are considerably higher. Steam raising is the main use of coal at Kimberley.

Q And if you had a gas supply, would the percentages of use of gas for boiler heating be of the same percentage as coal?

A No, not entirely. Gas would first of all replace oil, which is, of course, our most expensive fuel. Then it would replace coal for raising steam and for drying purposes. The application of gas for metallurgical



B. P. Sutherland,
Cr. Ex. by Mr. Milvain.

- 1943 -

operations directly is more difficult and involves considerable development and might not work out as a practical economic matter.

Q In your estimate of the large amounts of gas that would be used, as appears on page 3 of your submission, can you tell us what percentage of that gas would be used for boiler heating?

A Well, at Kimberley I would estimate -- I do not have exact figures but I would estimate about 50 per cent.

Q That is at Kimberley. That is where you use the most of it for that purpose?

A That is where at the present time our coal is largely used for raising steam. This is just an approximate figure but at Trail I estimate about 1/12 billion cubic feet of gas would be used for raising steam.

Q And in both instances in Kimberley and Trail that gas being used would displace the use of coal?

A Yes, sir.

Q Now, in the event of your having gas supplied, would you have to keep some stand-back?

A That would depend upon the reliability of the gas supply.

(Go to page 1943)

B. P. Sutherland,
Cr. Ex. by Mr. Milvain.

- 1944 -

Q What would be your opinion in that case, from what experience you have been able to gather?

A Well, as far as our maximum operations are concerned we have no alternative sources of fuel.

Q Have you given consideration whether or not you have stand-by in Kimberley and Trail?

A I think consideration has been given to that.

Q And did you consider retaining the stand-by or not?

A There has been no conclusion reached regarding that.

Q And if the stand-by were kept, what would that be, coal and fuel oil?

A My present opinion, and it is only an opinion, without careful consideration, would be that fuel oil would be a reasonable stand-by for natural gas.

Q So that your stand-by equipment, you think, would not involve the use of coal at all?

A That is my opinion at the moment.

Q Do you know, does your plant own itself considerable coal interests?

A Our company has some interests in coal properties, and it has been reported that negotiations in this connection are under way at the present time.

Q To acquire further properties?

A Yes.

Q In the Crow's Nest Pass?

A I understand that is the case.

Q Now, I am looking for a moment at page 2 of your submission, Dr. Sutherland, and you say:

"Assuming a suitable price for gas."



B. P. Sutherland,
Cr. Ex. by Mr. Milvain.

- 1945 -

Has any consideration been given as to what a suitable price is?

A We have been given to understand generally that gas might be available at about 30 cents.

Q And if it were more than 30 cents what would you consider that suitable price to be?

A We are not by any means limited to 30 cents. It would depend on the quantity we might use and might vary as to price, but certainly 5 cents difference would not alter the estimates that I have made to any great extent.

Q But at this suitable price you have just mentioned to me, or in the range, in that range, would you then consider that gas would compete with the other fuels?

A That is correct.

Q On an economic basis?

A That is correct.

Q But if the price of gas were materially higher than that, then it would cease to so compete?

A Gas at a materially higher price could compete with oil, of course.

Q But not with coal?

A Not with coal; probably not with coal at the price of 50 cents.

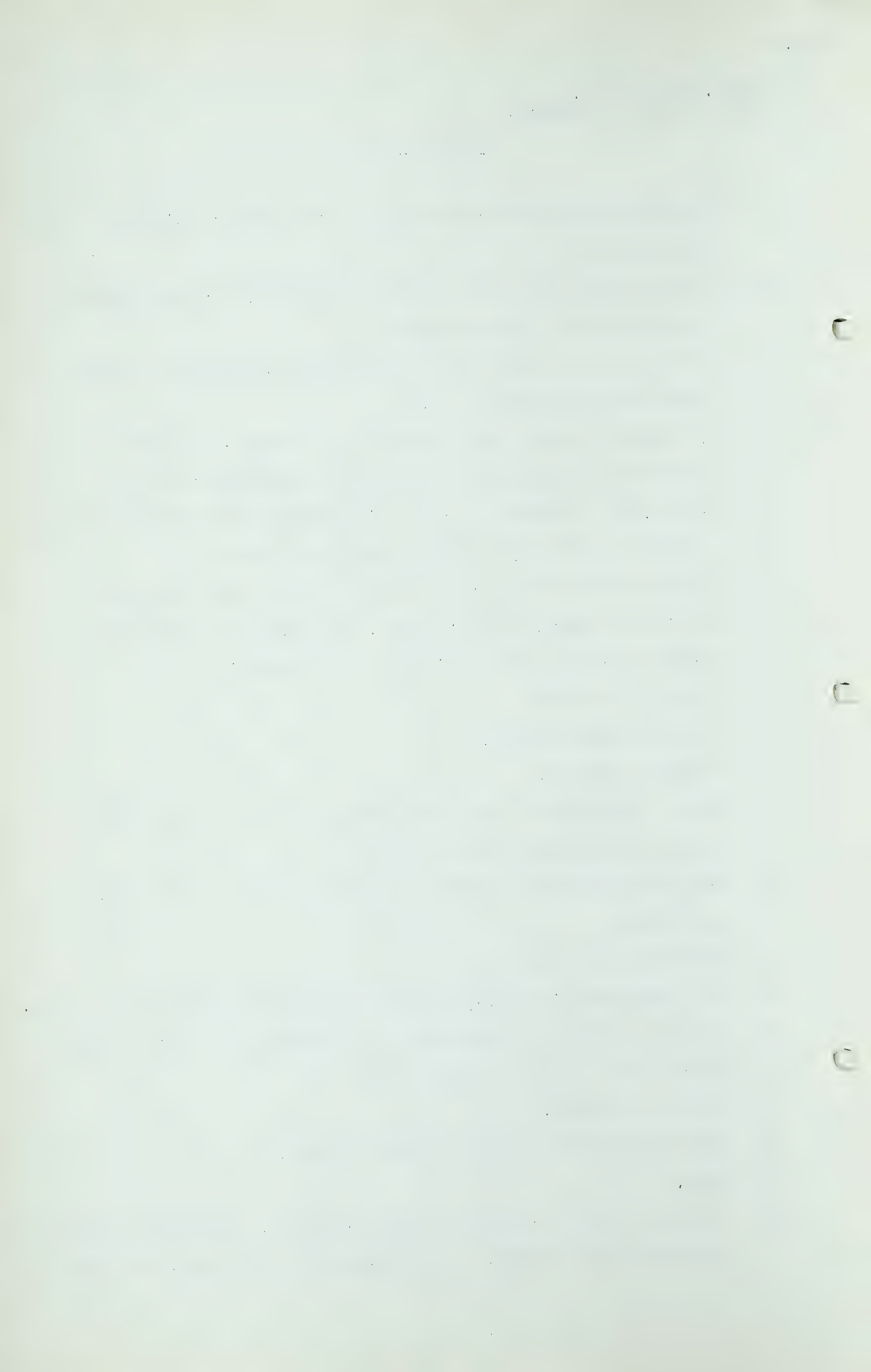
Q Now, you told me a moment ago, Dr. Sutherland, that you were buying slack coal at \$5.00 a ton?

A That is correct.

Q And you gave us the BTU content of that?

A Yes.

Q Have you made a calculation what would be, or have you made a calculation to find out what would be the break-even price



B. P. Sutherland,
Cr. Ex. by Mr. Milvain.

- 1946 -

per Mcf of gas compared with the coal?

A I have some estimates in that connection. You should understand that that is the price of coal at the mine. By the time the coal is in a burner its price will be double that, approximately.

Q Well, that would be \$10.00 for coal at your plant?

MR. McDONALD: In the burner.

Q MR. MILVAIN: In the burner at your plant?

A Yes, it might be \$10.00 in the burner at the plant.

Q All right, let us get the break-even on that?

A Well, on a BTU value, at the efficiencies one might expect, coal at that price corresponds to gas, we estimate, at about 46 cents.

Q Laid in at your plant?

A Yes. There would probably be additional advantages in gas in connection with the ash disposal and other incidentals that occur in connection with the use of coal.

Q And that is 40 cents per Mcf or per 1000 BTU?

A Per Mcf.

Q Pardon?

A Per thousand cubic feet.

Q Per thousand cubic feet?

A Yes.

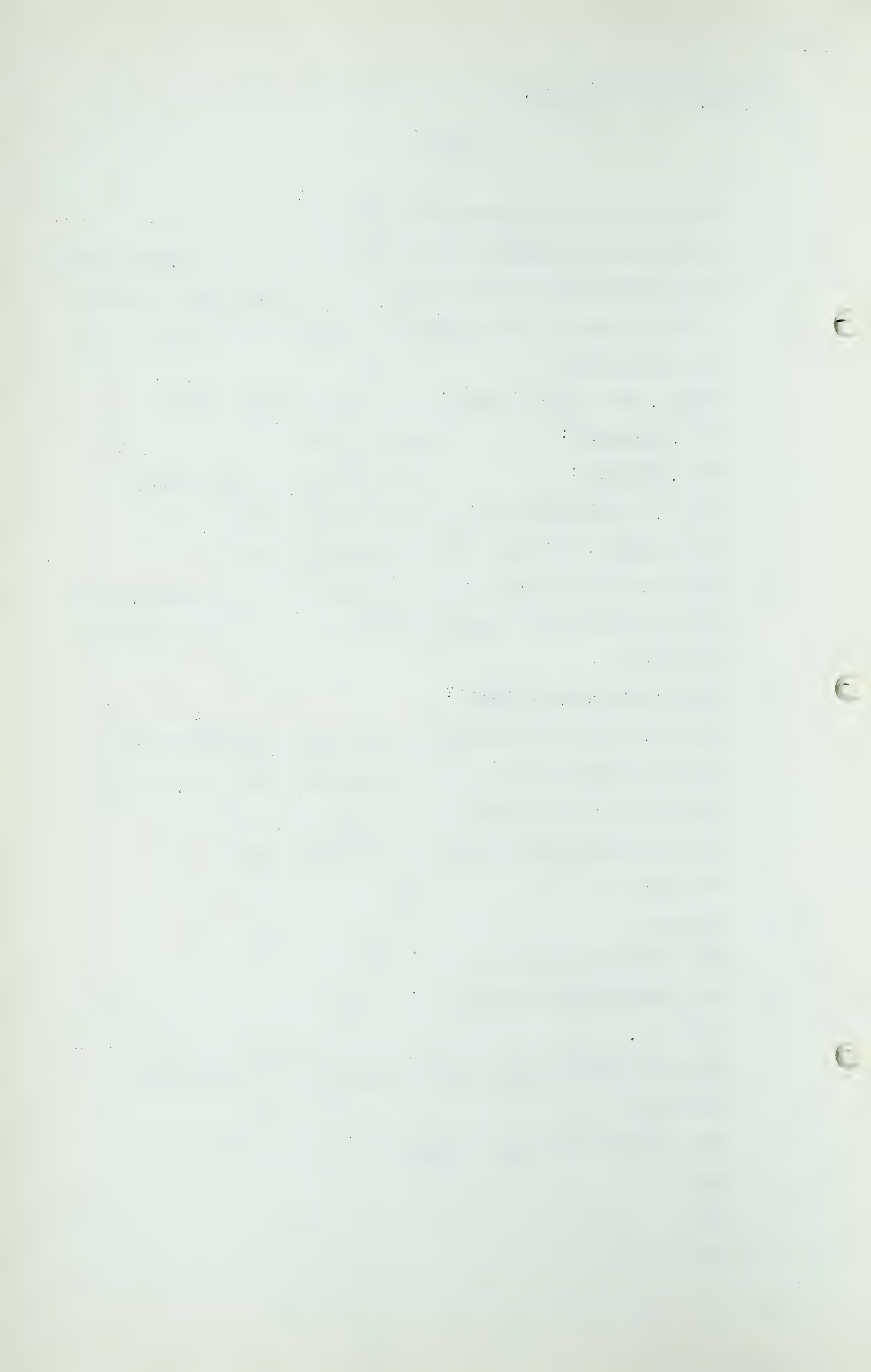
Q And what efficiencies did you use in making those calculations?

A 80%, I think, was the figure.

Q 80%?

A Yes.

Q For which?



B. P. Sutherland,
Cr. Ex. by Mr. Milvain.

- 1947 -

A In both cases.

Q In both cases?

A Yes.

Q Now, I notice, too, Dr. Sutherland, at page 3 of your submission, that you speak of:

"In addition, one and one-half billion cubic feet
or more might be used at Trail"

for processes for which the gas would be used as a raw material?

A Yes.

Q Is that an operation similar to what is being carried on in the Calgary plant?

A The operation at Calgary uses gas.

Q Yes?

A In part as a raw material.

Q Yes?

A That is right. And gas as a raw material may be used for other similar chemical purposes. It also may be used as a reducing agent in metallurgical operations.

Q Could the gas be used in Trail and Kimberley for the same raw material purposes as it is being used in Calgary?

A It could be, but we do not have any plans in that connection at the present time.

Q I see.

A And we certainly have no expectation of shutting down the Calgary operations.

Q So that when you speak of gas being used as a raw material here, you have really no definite idea what it would be used for?



B. P. Sutherland,
Cr. Ex. by Mr. Milvain.

- 1948 -

A Not yet, nothing sufficiently definite to quote.

Q Have there been any negotiations made with your company as to supplying gas at any particular price in Trail or Kimberley?

A Prices have been indicated, for example, in this submission (indicating) which I understand is to be presented before the hearings of this Board.

Q I was wondering what prices might have been presented to your company?

A Prices in the region of 30 cents have been suggested. We have no contract with any company, but we have been given to understand that with a high load factor we might expect to get gas at about 30 cents.

Q Have you had more than one such suggestion made to you, or does it come from more than one source?

A I am only aware of one source from which a quotation has been received.

Q What company is that?

A That is the Northwest Natural Gas Company.

Q The Northwest?

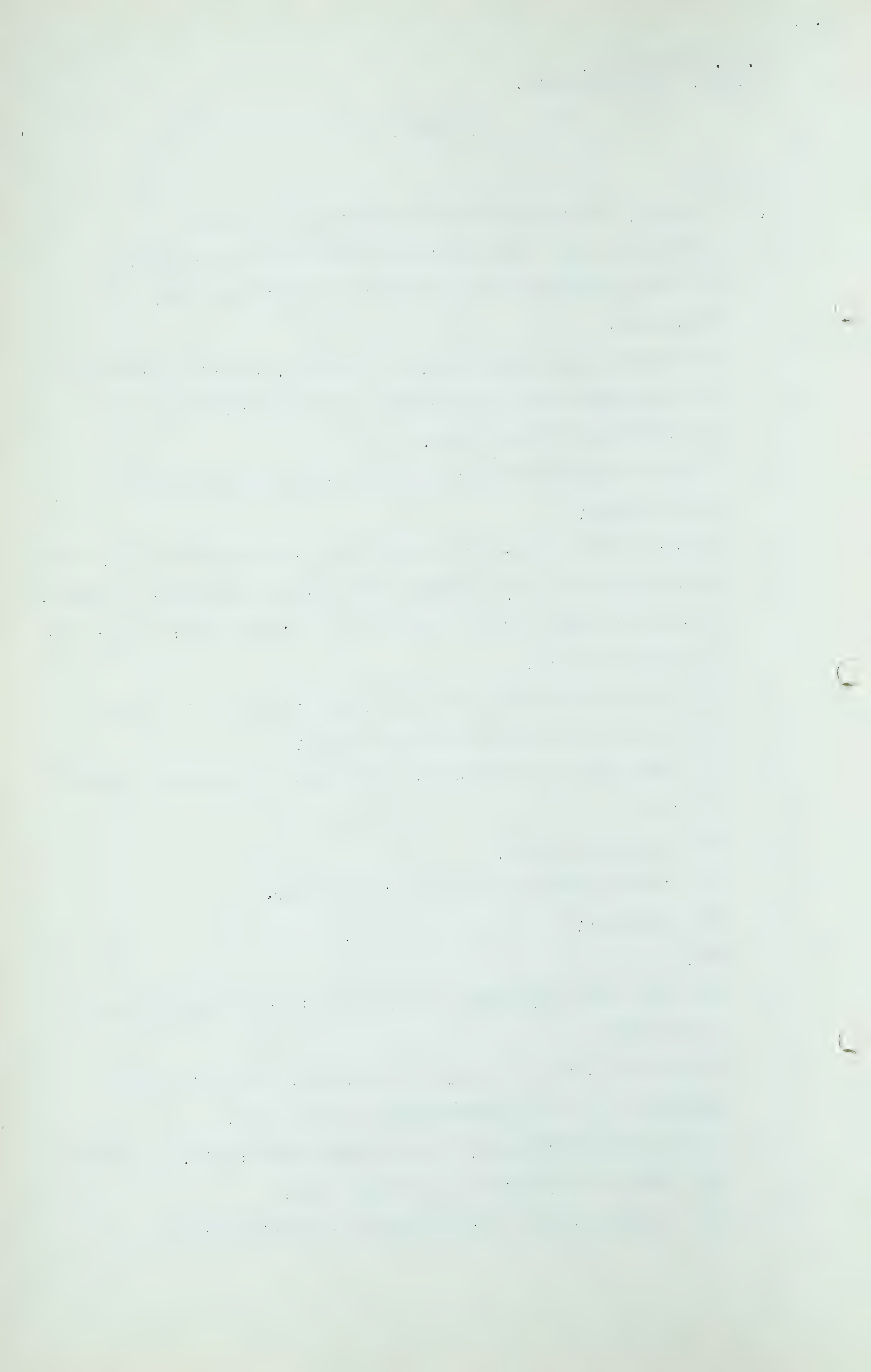
A Yes.

Q The price they have quoted to you was in the neighbourhood of 30 cents?

A I would not call it exactly a quotation. The price they indicated is in the neighbourhood of 30 cents.

Q In using 80% efficiency, as your efficiency basis, do you use that both for pulverized and stoker coal?

A That comparison was on the basis of pulverized coal.



B. P. Sutherland,
Cr. Ex. by Mr. Milvain.
Exam. by Dr. Govier.

- 1949 -

Q That comparison was on the basis of pulverized coal?

A Yes, most of our slack coal is used as pulverized coal.

Q I see. I think that is all. Thank you, Doctor.

EXAMINATION BY DR. GOVIER:

Q Dr. Sutherland, I wonder if you would refer to page 3 of your brief where you make reference to the use of gas as a chemical raw material. Is it fair for the Board to interpret from that that at 30 cents, or within 5 cents of 30 cents, your company could use gas as a chemical raw material in Trail?

A Yes, that is right.

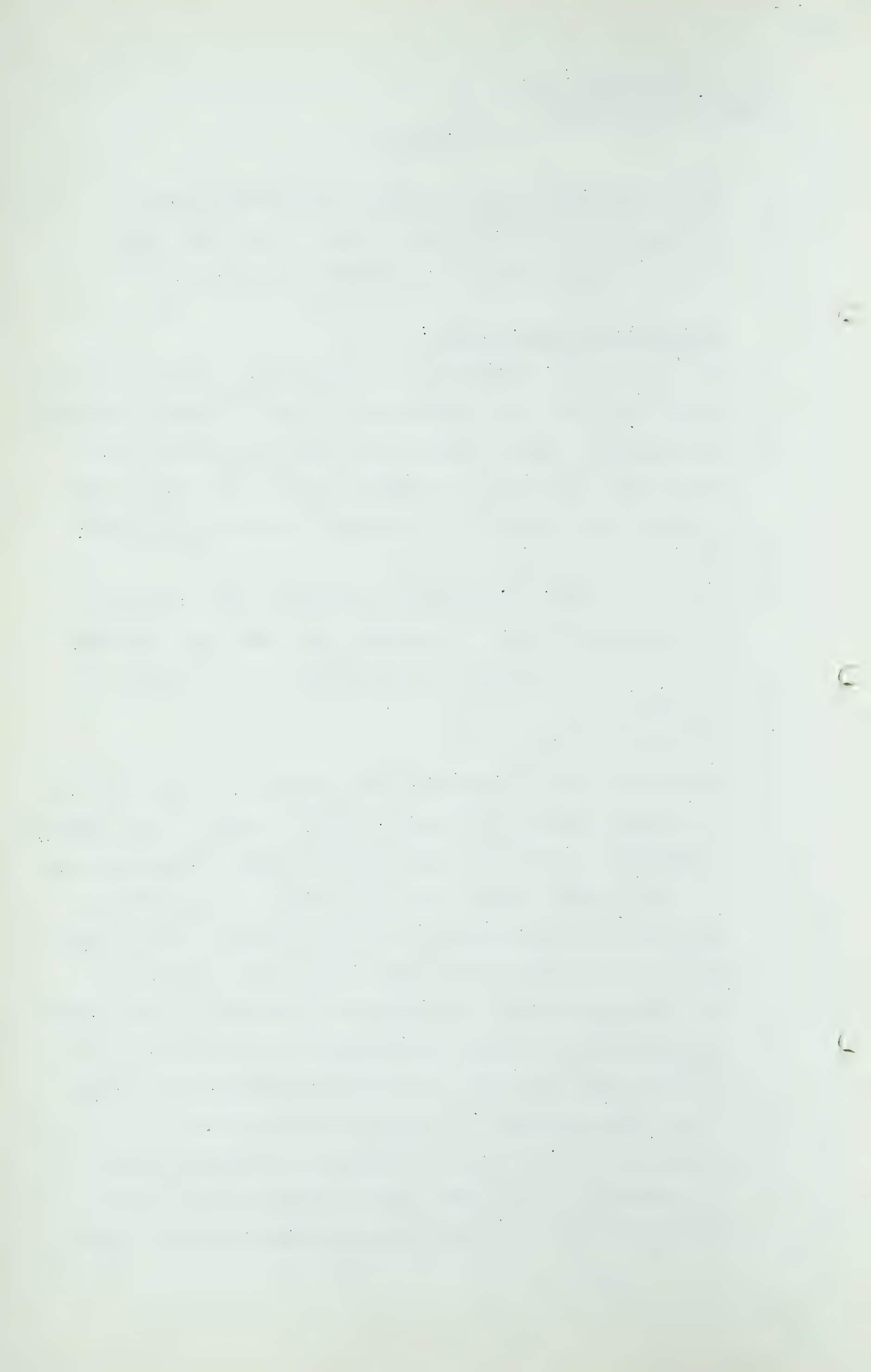
Q Would you think, Dr. Sutherland, that we might also extend that argument to say that anywhere else where gas is available at 30 or 35 cents it might be used as a chemical raw material?

A That is correct.

Q Earlier in these proceedings, Dr. Sutherland, it was indicated to the Board that pipe line gas, partly because of its chemical composition and partly because of its higher price at the end of the line, was seldom used as a chemical raw material at the ultimate distribution point. Your evidence this morning is contrary to that, and I would like to know whether you can elaborate at all and indicate as to whether, under similar circumstances, or under what circumstances, the gas at the end of a pipe line might be used as a chemical raw material?

A It is very difficult to be specific on the point.

Q I appreciate that. It would depend on the particular gas, the location of your plant, and the material that is being produced. I do not think I could generalize in that regard.



B. P. Sutherland,
Exam. by Dr. Govier.
Exam. by the Chairman.

- 1950 -

Q May I ask you this, Dr. Sutherland, would you subscribe to the general thesis that pipe line gas, because of its chemical composition and because of its higher price at the end of the transmission line, is very seldom used as a chemical raw material?

A I do not know that I have enough evidence in mind to agree with that entirely. Generally speaking, it is cheaper to ship gas through a pipe line than it is to haul the chemical by rail.

Q I take it you would rather not go beyond the actual situation at Trail with which you are familiar, is that about it?

A That is correct, yes, sir.

Q That is fine, thanks, Dr. Sutherland.

EXAMINATION BY THE CHAIRMAN:

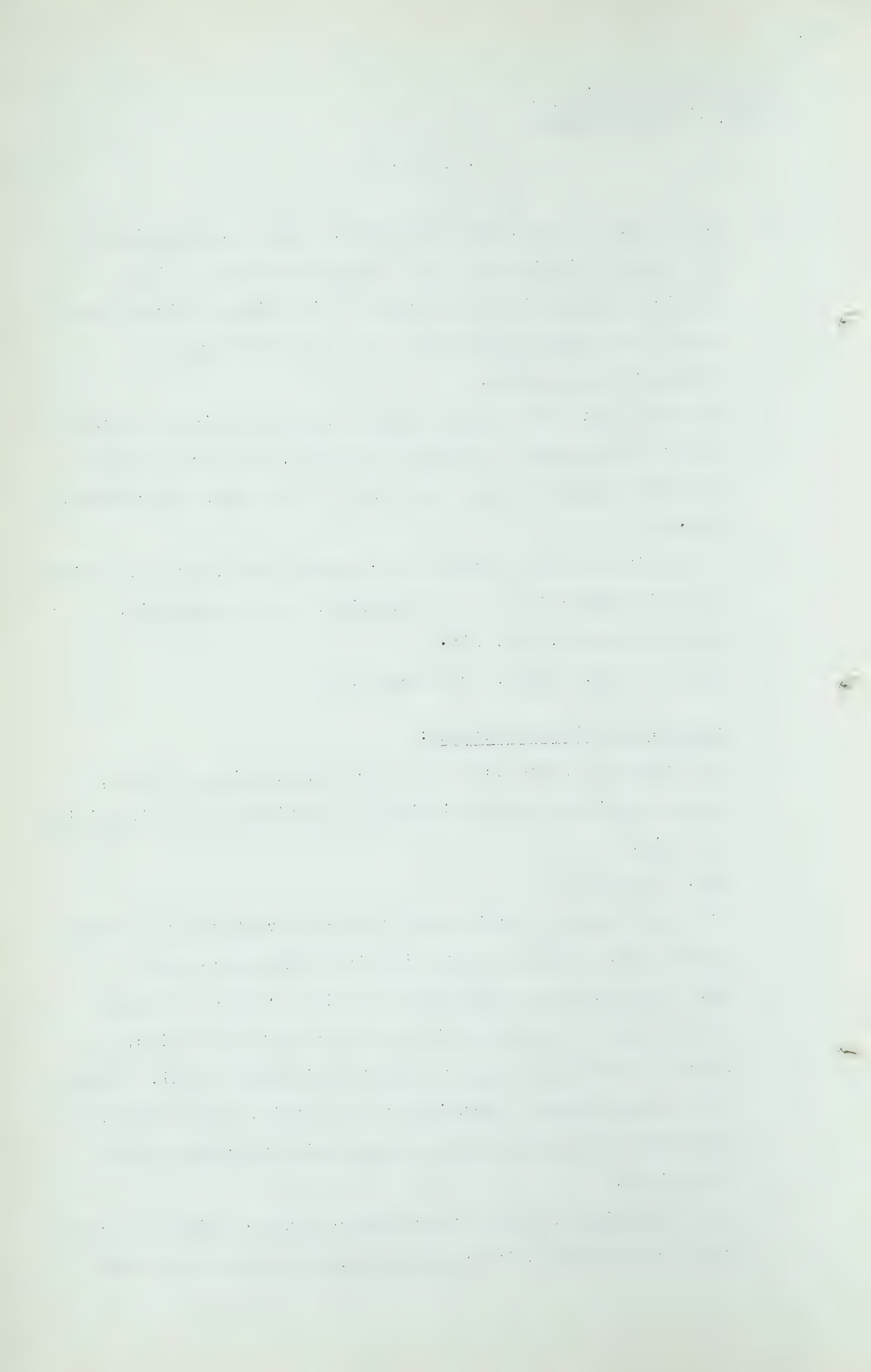
Q Dr. Sutherland, the use of gas for raw material at Trail, would that involve the building of additional plant facilities at Trail?

A Yes, it would.

Q Could you tell me why it would be more advantageous to build them at Trail than to build them in the Province here?

A That question would depend upon specific cases. We might use the gas as a raw material in the reduction of zinc, in which case the fact that we have the zinc near Trail, and our other metallurgical operations are at Trail, would probably make Trail more advantageous as the point to carry out the operations.

Q But there might be some other product that you might use the gas for which may quite possibly mean that you could build



B. P. Sutherland,
Exam. by the Chairman.
Cr. Ex. by Mr. McDonald.

- 1951 -

the plant somewhere more advantageous?

A Certainly. And we have an operation already in Alberta using natural gas. We have heavy expectations that that operation will be added to in one way or another. We have to decide on an economic basis at which point any particular operation should be carried out.

Q So that where at all possible you would have the gas processed here when you are using it as a raw material?

A Yes. The differential in price as between, say, Calgary and Trail, for natural gas, will certainly be taken into account in considering any new use for natural gas.

MR. McDONALD: If I might ask one more question,
Mr. Chairman?

THE CHAIRMAN: Yes.

CROSS-EXAMINATION BY MR. McDONALD:

Q The content of your pipe line gas is mostly methane?

A That is correct.

Q And in order to do anything with methane from the chemical standpoint, you require a fairly large and substantial investment?

A That is right.

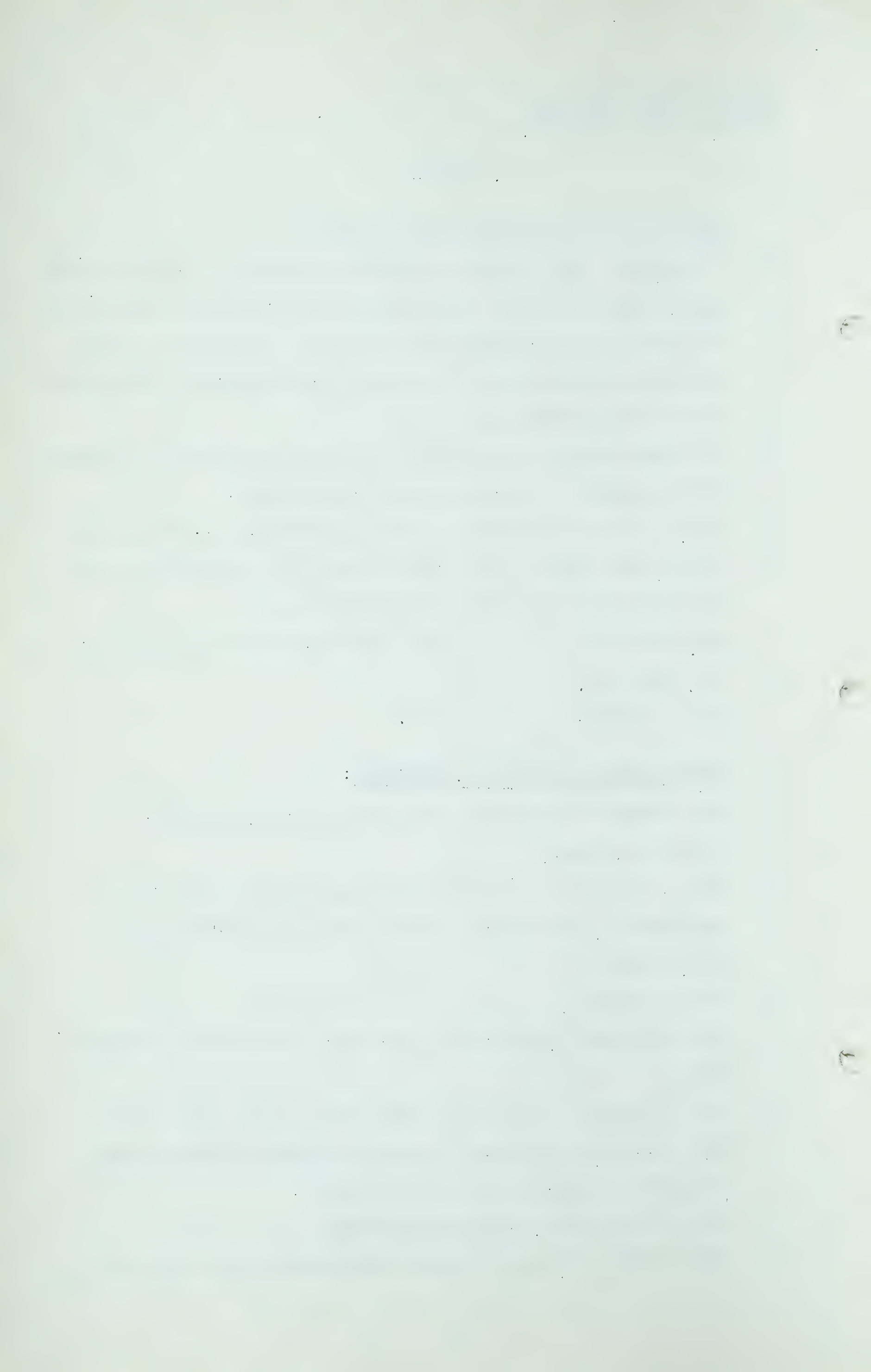
Q In other words, you have a very large investment in Calgary?

A Yes.

Q And in order to use gas at some point at the end of the pipe line you would have to have an equally large or something of a similar type of investment?

A That is correct, generally speaking.

Q But in Trail you have a plant which deals almost with all



B. P. Sutherland,
Cr. Ex. by Mr. McDonald.
Cr. Ex. by Mr. Nolan.

- 1952 -

chemicals, with a great many chemicals, whereby methane could be used as an adjunct to some of the types of development you have already there?

A Yes, methane could be used with relatively very little capital expenditure at Trail to the extent I have described.

Q But to go any further you would require something along the line of the Alberta Nitrogen Company?

A Yes.

Q Which is an investment of a good many millions of dollars?

A Yes.

Q Thank you.

CROSS-EXAMINATION BY MR. NOLAN:

Q Dr. Sutherland, am I correct in saying that ammonia is one of the materials for which pipe line gas may be used as a raw material?

A Theoretically that is correct, but in any particular instance it will depend upon the price of the gas at the end of the pipe line.

Q You have an ammonia plant, haven't you?

A We have an ammonia plant at Calgary here, and we have an ammonia plant at Trail also.

Q One at Trail and one at Calgary?

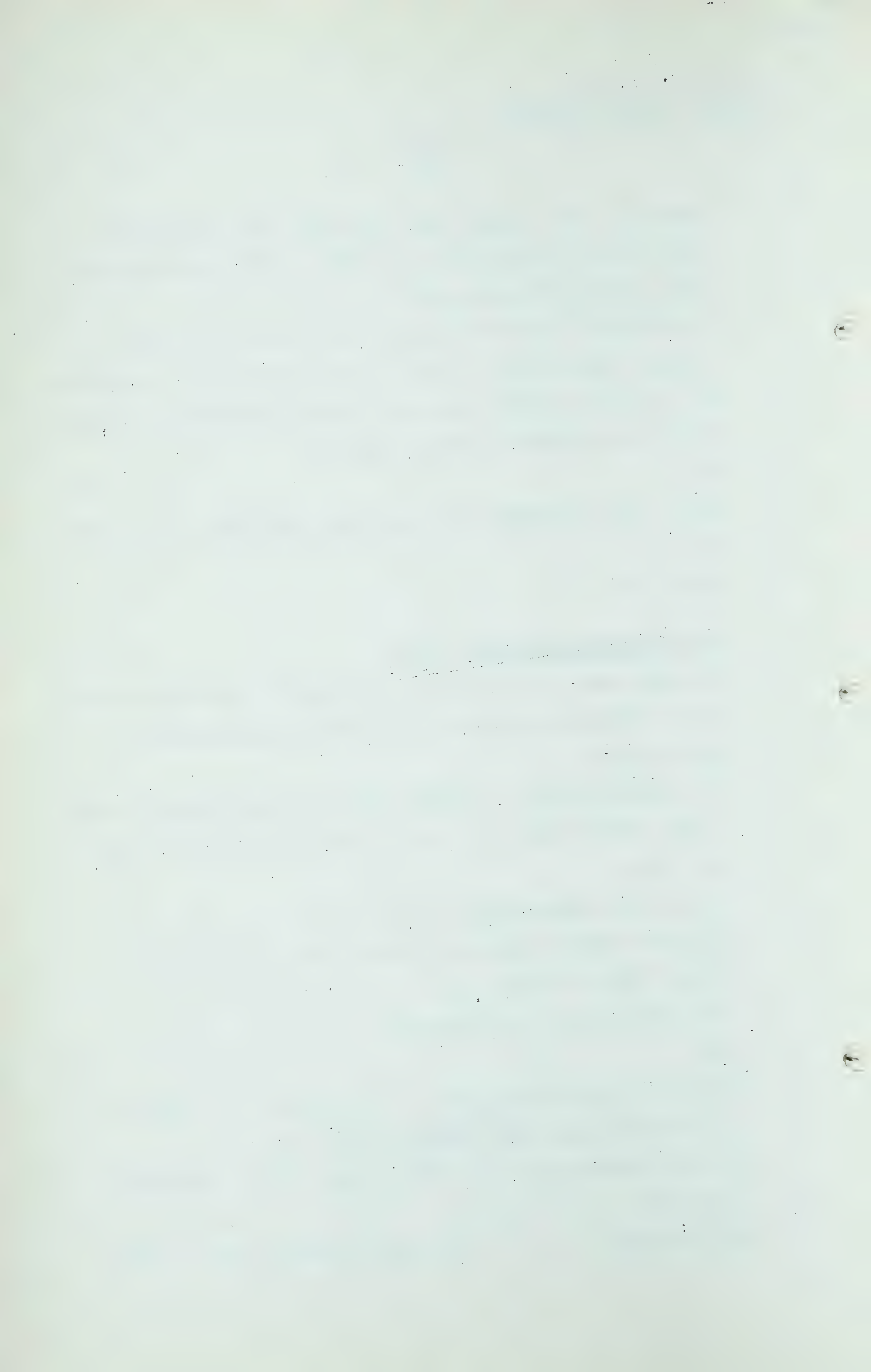
A Yes.

Q Well, is the gas being used as a raw meterial at Calgary in connection with your ammonia plant?

A The gas at Calgary is the raw material for the production.

Q Thank you.

Q MR. McDONALD: The process that you use in Trail



B. P. Sutherland,
A. Faison Dixon,
Dir. Ex. by Mr. Nolan.

- 1953 -

is entirely different than the one in Calgary?

A Yes, that is right. We have two processes at Trail, one based on hydro-electric energy and the other based on the use of coke.

THE CHAIRMAN: Thanks, Dr. Sutherland.

.....

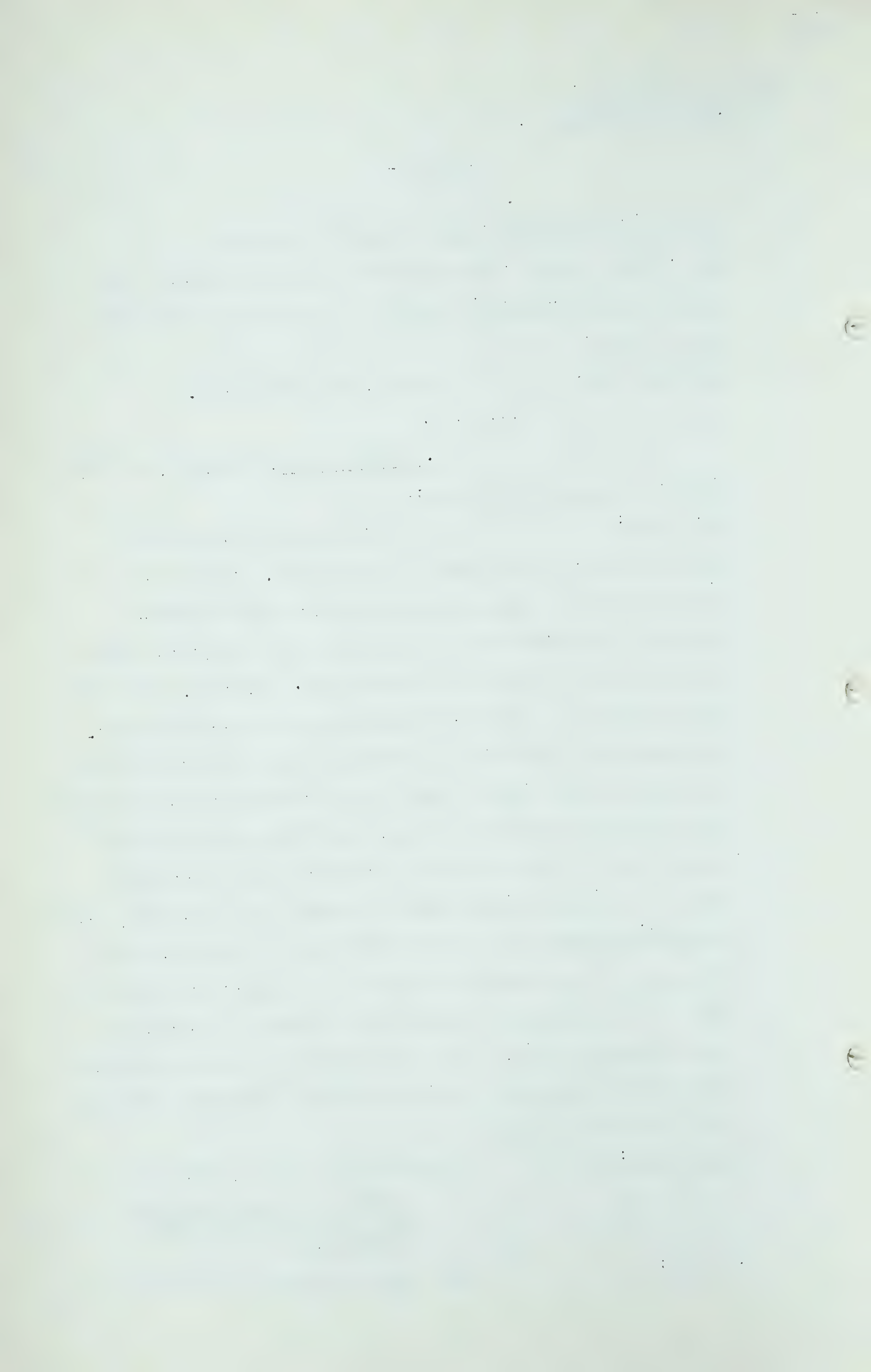
A. FAISON DIXON, recalled, already sworn, testified as follows:-

MR. NOLAN: Mr. Chairman, as it has become quite obvious, my intention is to call Mr. Dixon as the first witness in completing the case for the Northwest Company. Mr. Dixon has been sworn, and his qualifications are on record. It will be recalled, Mr. Chairman, that when the directive was issued by the Board as to what the applicants would be expected to produce at this time, there were included, amongst other things, the contracts which established the applicant's ownership of gas, and that was interpreted by the Board to include option agreements made contingent upon the applicant being granted a permit, and I propose, with the Board's permission, in the first place to go on record, or to put on the record the result of our negotiations with some of the producers, so first and foremost I am going to ask to have marked, if I may, the contract between Northwest Natural Gas Company and Canadian Gulf Oil Company, dated the 2nd of November, 1951.

THE CHAIRMAN: That will be exhibit number 61.

CONTRACT BETWEEN NORTHWEST
AND CANADIAN GULF MARKED
EXHIBIT 61.

MR. NOLAN: Now, that contract, Mr. Chairman,



A. Faison Dixon,
Dir. Ex. by Mr. Nolan.

- 1954 -

has been ready for some time and has been in the hands of the applicants and other interested parties. It is a lengthy document, quite complicated, portions of which I do not understand - that, of course, does not prove it is complicated, but I do not think I am going to take the time of the Board to read it, if I am permitted not to, but I would like to ask Mr. Dixon to give the Board some of the highlights of the document itself.

Q Perhaps, Mr. Dixon, you would tell the Board the amount of gas that has been purchased, the price at which it is being purchased, and for the length of time that the purchase contract is to subsist.

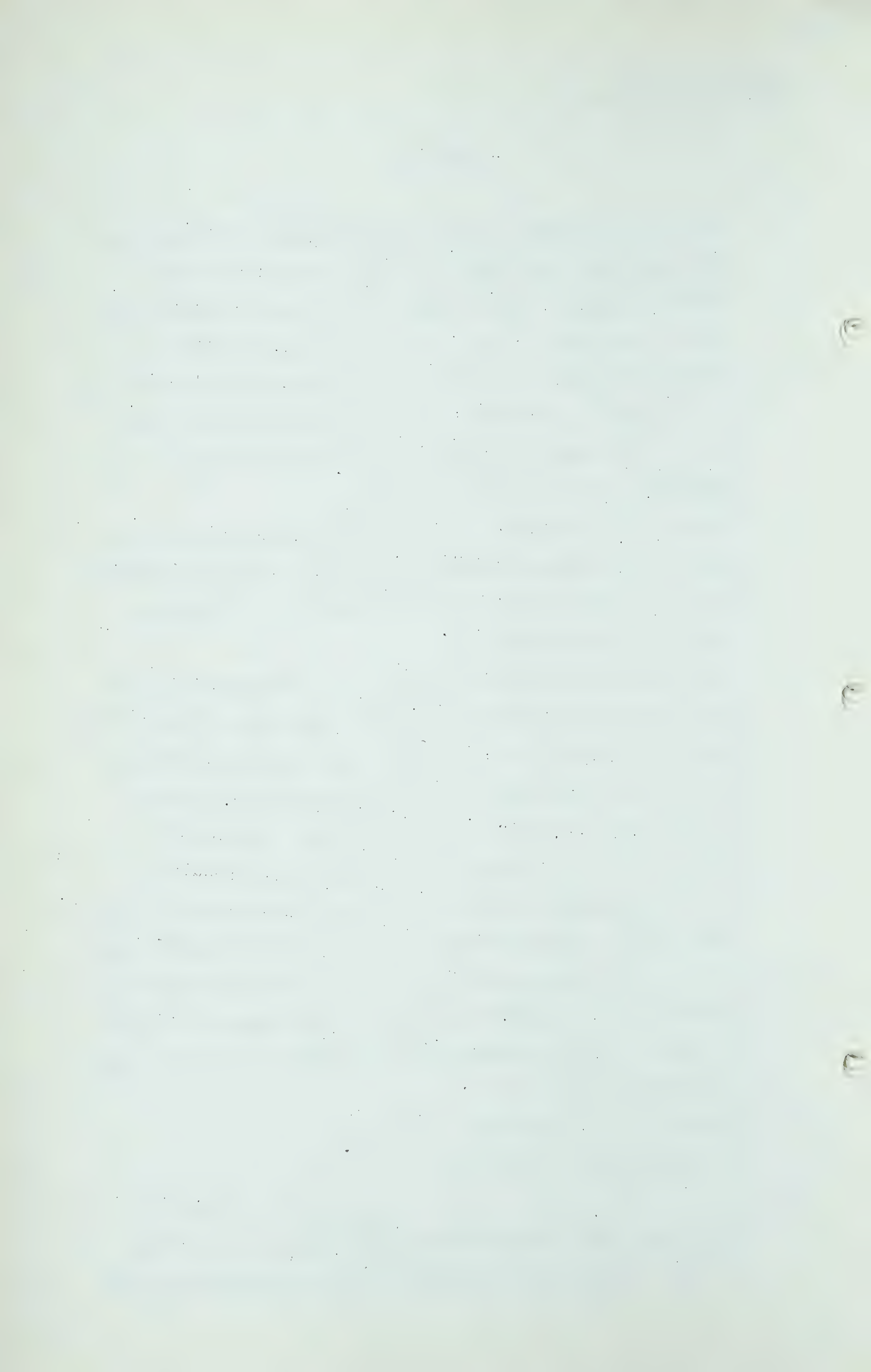
A The contract is for 25 years, and the price for the first three years is $10\frac{3}{4}$ cents, increasing thereafter $\frac{1}{4}$ of a cent per year, that is, as long as the amount of gas available for the line is no more than what the applicant is now asking for, which is 80 billion per year, wherefore that price is all that can concern us now. According to the wording of the contract 90% of the requirements of the line would be taken from the Canadian Gulf Oil Company, and that has been altered by a letter of agreement between the Canadian Gulf, and Northwest Natural Gas Company and it is now 85% of the requirements will be taken from the Canadian Gulf Oil Company.

Q That is for the first year?

A That is for the first year.

Q Yes?

A We estimate that at approximately 116 million cubic feet per day. The second year is 81% of the requirements of the



A. Faison Dixon,
Dir. Ex. by Mr. Nolan.

- 1955 -

line would come from this contract, and we estimate that at 144 million cubic feet per day. After that, the next year it is 70% of the requirements of the line, which we estimate at around 153 million cubic feet per day. In subsequent years there is 156 million cubic feet per day, of which we promised to take 85%. I think that covers the main features of the contract, although there are many provisions in here where the price can be changed by increased capital costs, decreased capital costs of the pipe line, according to our estimates, and price adjustments due to the change in the price of commodities.

Q That is what is called "price adjustment" in paragraph 11, at the bottom of page 5, Mr. Chairman.

A I think the rest of it is self-explanatory.

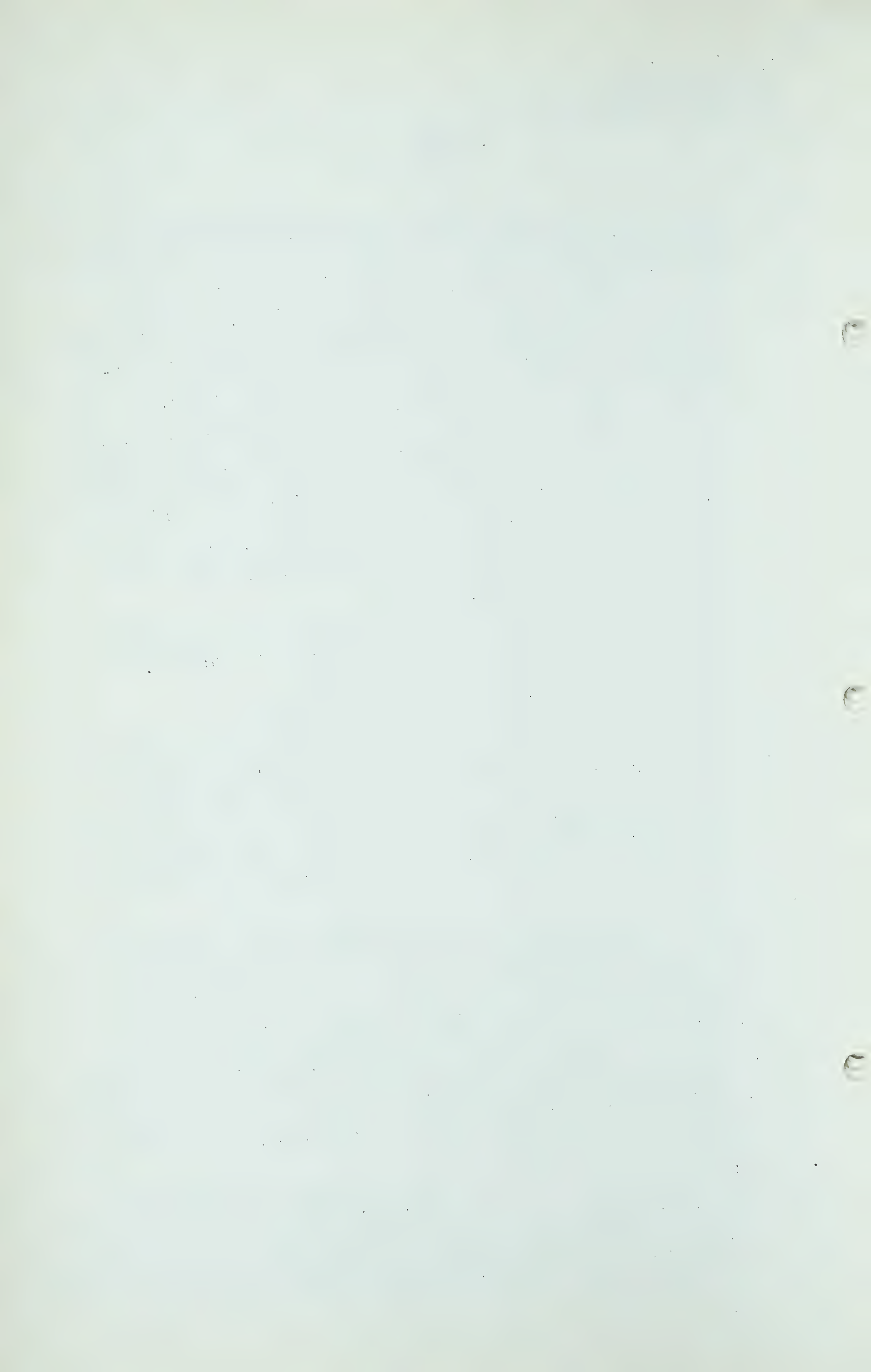
Q Well, I think we should mention to the Board, Mr. Dixon . . .

A Oh, the pressure base is 15.025 pounds per square inch absolute pressure, and the gas is to be delivered clean and ready for the pipe line at a pressure of 750 pounds gauge pressure.

Q You have given us the price. Perhaps we should direct the attention of the Board to clause 17 which provides that in the event of our not being able to get the prerequisite permits, either in Canada or the United States, that the seller, that is the Gulf Oil Company, the Canadian Gulf Oil Company, shall have the right to terminate the contract?

A Yes.

, MR. NOLAN: I do not think, Mr. Chairman, I need to go into it in any more detail than that. If there are any points that require exploration, I am sure my learned



A. Faison Dixon,
Dir. Ex. by Mr. Nolan.

- 1956 -

friends will bring them out in cross-examination.

Q Now, what is your arrangement, if any, with the California Standard Company?

A We have a letter from them dated November 6th, 1951, which has been distributed as an exhibit.

MR. NOLAN: May I just get a number for that, Mr. Chairman?

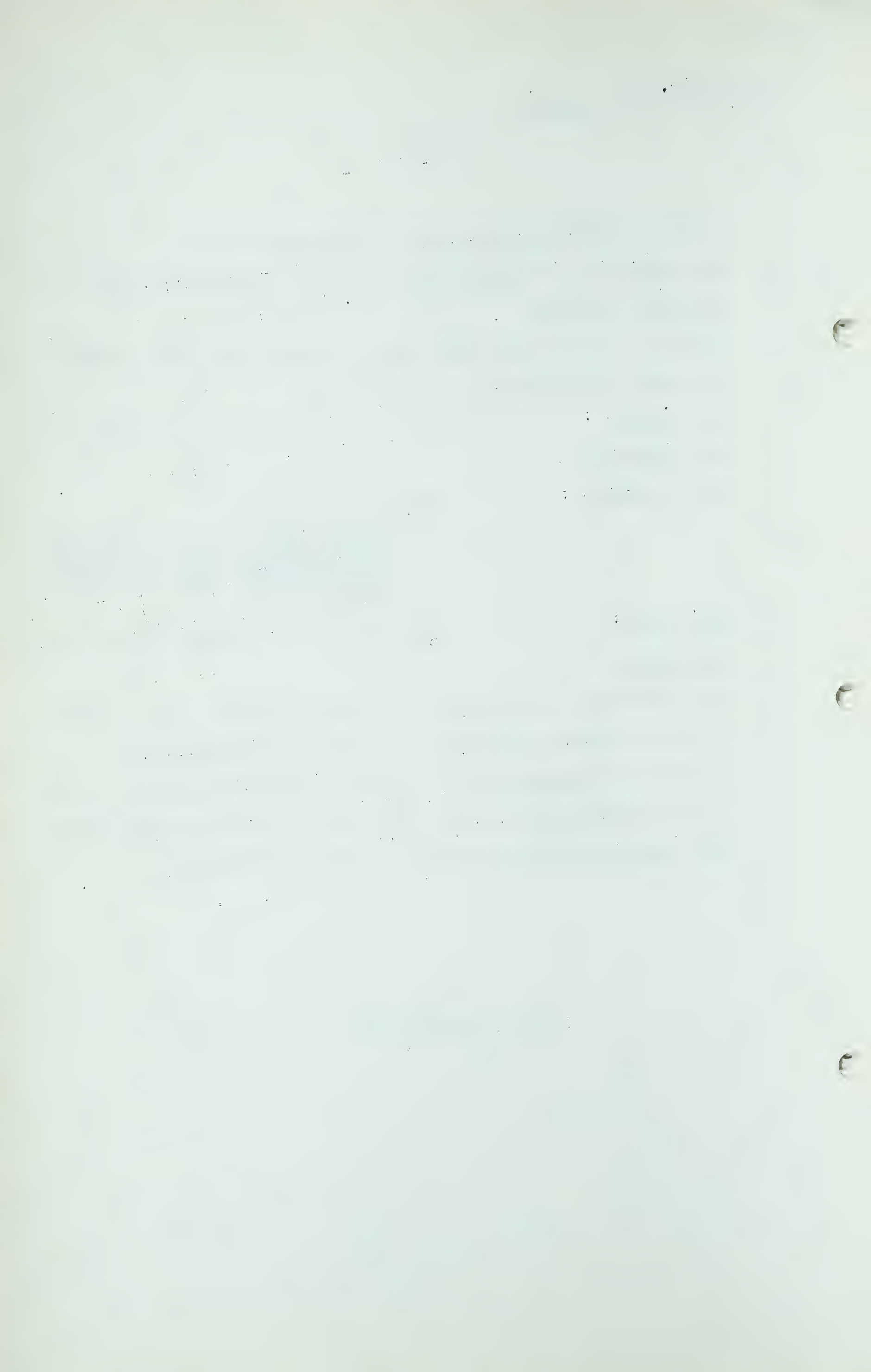
THE CHAIRMAN: Exhibit number 62.

LETTER FROM CALIFORNIA STANDARD
TO NORTHWEST NATURAL GAS COMPANY
DATED NOVEMBER 6th, 1951, MARKED
EXHIBIT 62.

MR. NOLAN: That has been distributed to all concerned.

A Last Saturday I was informed from San Francisco that a signed contract which we had agreed upon had been mailed to me. I have not received that yet, but it is an agreement following in practically ever detail, excepting that of the quantities, the agreement with the Canadian Gulf Oil Company.

(Go to page 1956.)



A. F. Dixon,
Dir. Ex. by Mr. Nolan.

- 1957 -

Q Now, that, Mr. Chairman, must be put before the Board. As you have heard the witness say, it has only been completed within the last few days, and so that this letter to which we have referred, Exhibit 62, is superseded by a written, signed contract between the parties, which I will undertake to produce as soon as it reaches my hands, that is the California Standard. Now, what is the position with regard to the Britalta Company?

A We also have a letter dated November 10th from the Britalta Petroleums Limited and Deep Rock Oil Corporation.

Q Might that be given a number?

A We have signed a contract with them which is practically identical with that of California Standard Company.

LETTER NOVEMBER 10th, 1951,
FROM BRITALTA PETROLEUMS
LIMITED AND DEEP ROCK OIL
CORPORATION TO A. FAISON
DIXON PUT IN AND MARKED
EXHIBIT 63.

Q And the difficulty about producing it at the moment is the delay in production?

A It is now in the hands of the printer and we expect to have it before the end of the week.

MR. NOLAN:

And again, Mr. Chairman, I will undertake to have marked as an exhibit that completed contract between the Britalta and the Northwest Company.

Q Have you anything to indicate the result of your negotiations with the Amerada Petroleum Corporations?

A I have a letter from them dated August 21st, which, if I may, I will read into the record.

Q It is very short, Mr. Chairman.

A. F. Dixon,
Dir. Ex. by Mr. Nolan.

- 1958 -

"

AMERADA PETROLEUM CORPORATION

120 Broadway, New York 5, N.Y.

A. Jacobsen,
President.

August 21, 1951.

Northwest Natural Gas Company,
111 Broadway,
New York, N.Y.

Attention: Mr. Faison Dixon.

Gentlemen:

As I understand you are aware, this Corporation has a half interest with the Stanolind Oil and Gas Company in a gas well located in Section 23-26 North-14W4. Both wells are shut in at this time for lack of a market. We also have full or half interest in a substantial amount of acreage surrounding these wells which may reasonably be expected to be productive of gas when drilled.

Confirming my conversation yesterday with your Mr. Dixon, I wish to state that when a market is available which in our judgment is satisfactory with respect to price, volume, and responsibility of purchaser, it is our intention to drill such additional wells as we may consider necessary in order to satisfy our share of such market demand.

Yours sincerely,

A. JACOBSEN,

President.

AJ/D

"

LETTER DATED AUGUST 21, 1951,
FROM A. JACOBSEN, PRESIDENT
AMERADA PETROLEUM CORPORATION
TO NORTHWEST NATURAL GAS
COMPANY PUT IN AND MARKED
EXHIBIT 64.

A. F. Dixon,
Dir. Ex. by Mr. Nolan.

- 1959 -

Now, we have gone no further in our negotiations with the Amerada because all the line has now been filled up with the three contracts we already have.

Q Well, now, Mr. Dixon, I think we should mark it even though it was read into the record.

A We have copies that could be distributed.

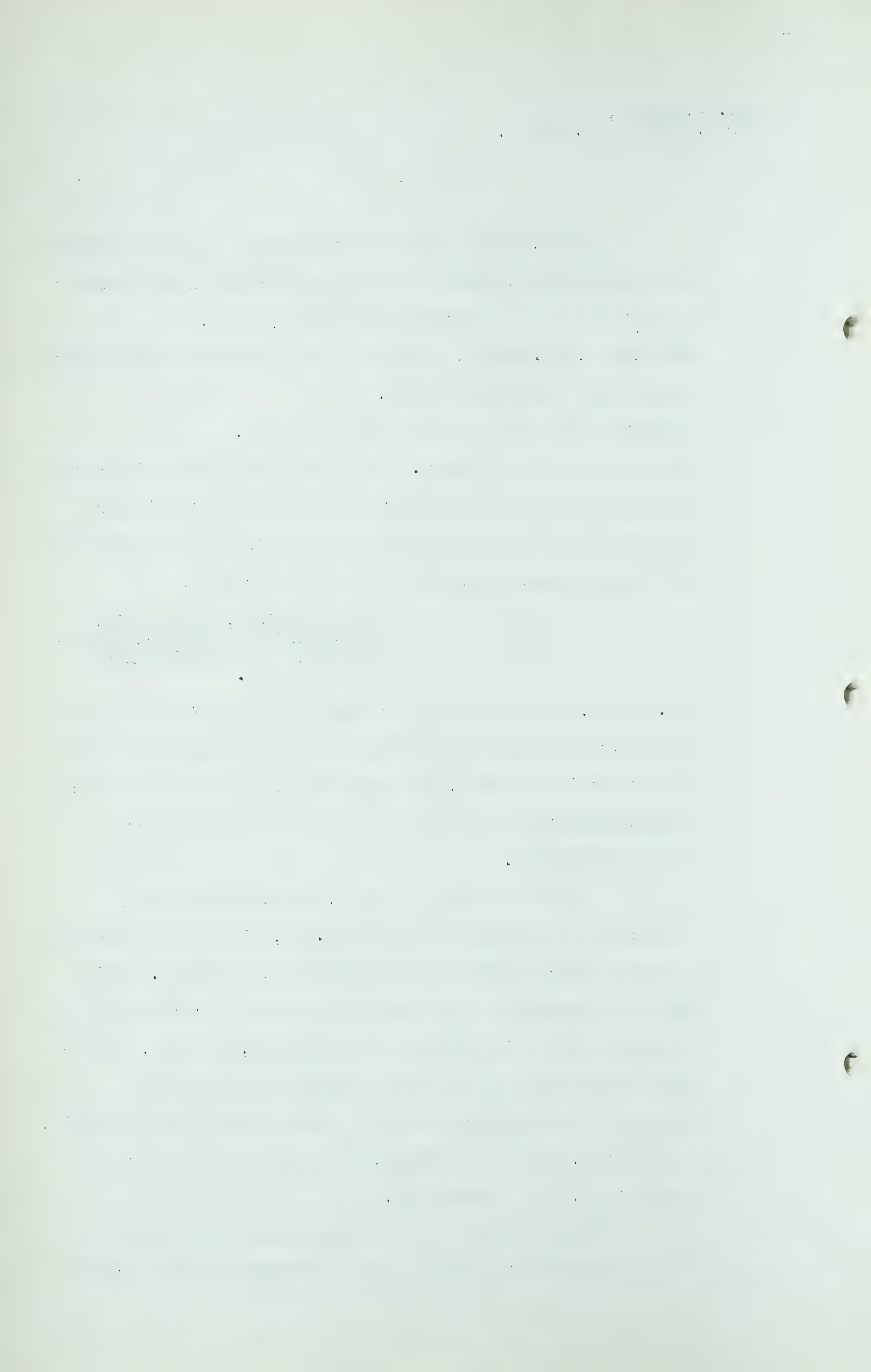
Q We have distributed them. There has also been distributed some time ago a form of submission entitled "Design and Estimated Cost of the Gathering System", and I am going to ask the Chairman to give me a number for that.

SUBMISSION, "DESIGN AND
ESTIMATED COST OF GATHERING
SYSTEM" PUT IN AND MARKED
EXHIBIT 65.

Q Mr. Dixon, would you be good enough to read Exhibit 65 to the Board and make such comments on the breakdown of costs as you desire to make. The submission is very short and I think reading it would be the easiest way to place it before the Board.

A At its hearing in June, 1950, this Company presented to the Board Exhibit No. 29, which is the design of our projected natural gas transmission system. This system originates at the upstream side of a compressing station to be built near Pincher Station, Alberta. Inasmuch as there has not been any change in our plan to transport gas from this point to Southern British Columbia, Washington, Oregon and Idaho, the design as set forth in Exhibit No. 29 is unchanged.

Since steel is now being allocated, it might not be possible to construct the entire gathering or grid



A. F. Dixon,
Dir. Ex. by Mr. Nolan.

- 1960 -

system as contemplated in June, 1950, until more urgent requirements have been met. Consequently, Northwest Natural Gas Company initially plans to take natural gas from the most accessible fields. This exhibit is concerned with this modified plan and sets forth a system which will utilize gas from Pincher Creek, Princess, Many Island Lake, Countess and Sunnynook Fields in Southern Alberta. Dr. A.D. Brokaw presented a deliverability schedule for these fields (Exhibit No. 28) at this Joint Hearing.

We are now, since we have these contracts which are actual and precise, in a position where we must change the source of our gas. We are now going to the Princess field, which includes Patricia, and also down to the Dunmore field, which are part of the holdings of the California and not the Countess and Sunnynook fields. The length of line and the size of line to go to the Dunmore field is almost exactly the same as the length of line and size that would be needed to go to the Countess field. That would start a little west of Many Island and go about 16 miles down to Dunmore. We will eliminate the Sunnynook line as of the present as we now expect to get the gas that is needed evenly divided from the Princess and Many Island fields.

The proposed gathering system is located in Southern Alberta; it begins at Pincher Station and extends northeast to a point near Brooks on the Canadian Pacific Railway. From here lines radiate to a point in Many Island Lake Field, (Twps. 13 and 14, Ranges 3 and 4 W 4), to a point near Princess, C.P.R. Station, to a point in the Sunnynook Field, (I have explained how we have changed

A. F. Dixon,
Dir. Ex. by Mr. Nolan.

- 1961 -

this but I will read it as it is in our submission), (Twps. 26 and 27, Range 14 W 4), to a point at the intersection of Twps. 20 and 21, Ranges 16 and 17 W 4 in the Countess Field, and from Pincher Station south to Pincher Creek Field. This system is illustrated on the attached schematic flow chart. The topography of this section of Alberta does not present any difficulty in pipe line construction. Three rivers will be crossed, as well as numerous small creek, several railways and highways. The terrain is flat to gently rolling and either cultivated or range lands.

The design of this gathering system is based on the fifth year of the transmission system's estimated maximum day requirements of 299,506 Mcf. This volume includes all station fuel and line losses. The attached schematic flow chart shows the volume of gas that will be supplied by each field for this peak day, together with the delivery pressure at each field.

As I said before, that is somewhat altered but essentially the same.

Size of pipe, length of line and pressure drop have been calculated by the Panhandle Eastern Pipe Line formula. Table 1 of this exhibit shows the estimated cost of this system to be \$12,908,000.

Northwest Natural Gas Company and its Alberta affiliate plan and expect to extend the gathering and grid system as originally projected in thsir application^e to this Board as soon as circumstances warrant. Recent surveys of the market in the area to be served by North-

A. F. Dixon,
Dir. Ex. by Mr. Nolan.

- 1962 -

west Natural Gas Company indicate that there is a potential market for natural gas beyond the 80 billion cubic feet annually for which this permit is requested. If sufficient reserves are developed and gas is surplus for the needs of Alberta, this company is prepared to serve these additional markets.

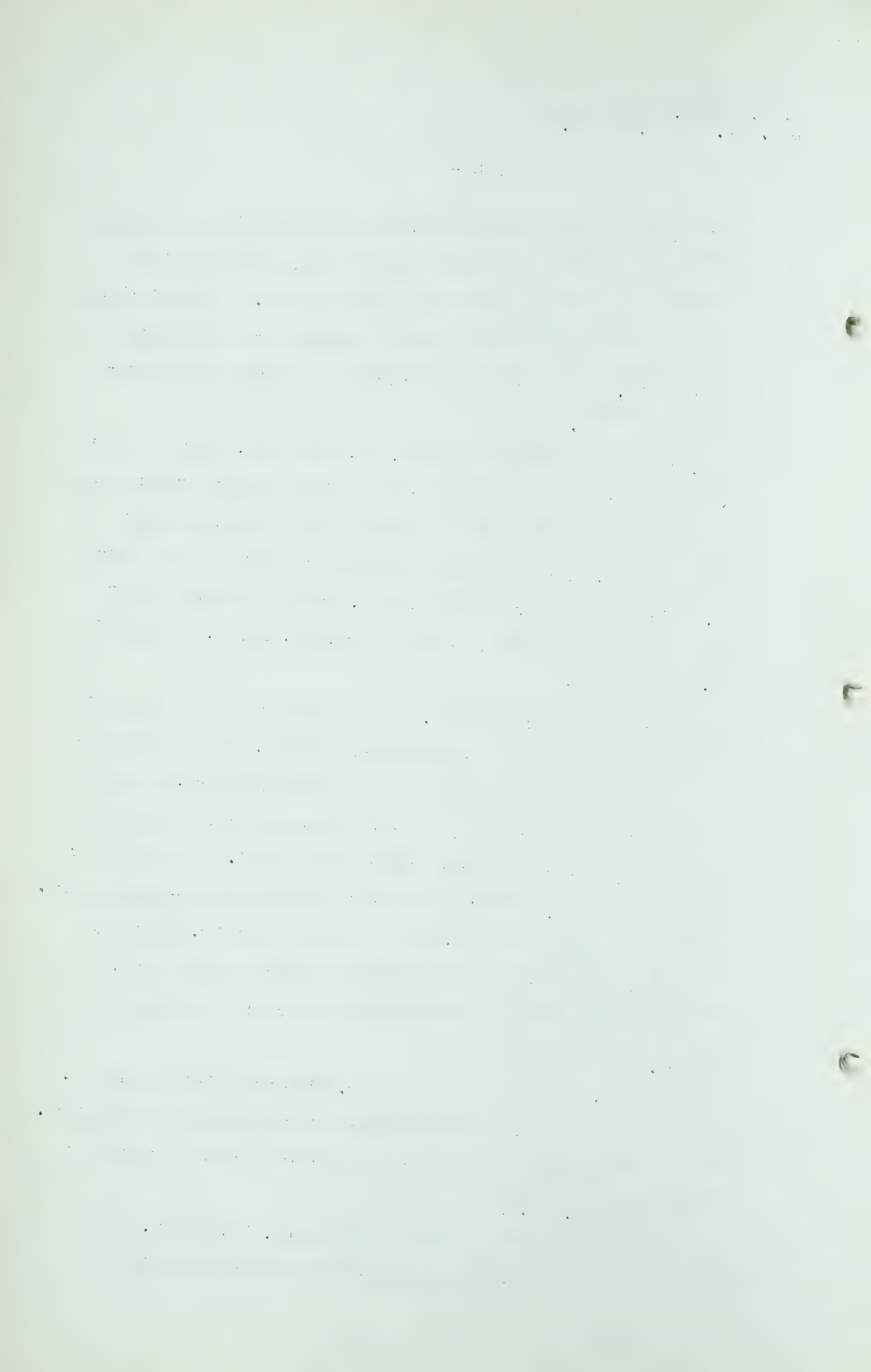
Q Now, there is appended to this, Mr. Chairman, Table I which consists of the estimate of cost of this system broken down as you see from the heads of each of the columns as set forth there. Are there any particular points in this Table I, which extends over three pages, that you would like to bring to the attention of the Board, Mr. Dixon, or does it explain itself?

A I think it explains itself. I might say that the cost of installation includes contractors' profit. That sometimes is put in another item but that is included here. We are estimating the duty at 10 per cent and the sales tax at 10 per cent, and freight from Milwaukee at \$44.00 per ton for the steel pipe. I think everything else is self-explanatory. I might add that these costs are those that Mr. Goodbody had worked out for our more extended system and we have just taken his costs as extended by him in his testimony here.

MR. NOLAN: Mr. Chairman will recall Mr. Goodbody as a witness on our behalf at an earlier date here.

Q Then I see you have attached a schematic flow chart for the 5 years, Mr. Dixon?

A I would like to speak on this a little, Mr. Nolan. We now have actual contracts which are definite and precise for



A. F. Dixon,
Dir. Ex. by Mr. Nolan.

- 1963 -

Princess and Many Islands. These contracts specify that the gas will be delivered at a central point at 750 pounds gauge pressure. We have worked out various deliverability charts, one Exhibit 28 of September, 1951, showing the amounts of gas that could be taken from Princess, but now conditions are somewhat changed in working such things out as we have left the vague region of conjecture on what might be done to a contractual relation of what can be done. They have made contracts to deliver this gas. The reserves of Many Islands field has been estimated here at 462 billion cubic feet and at Princess 338 billion. I do not remember, I think Dunmore was 60 billion. We have given also deliverability schedules for Pincher Creek. The amounts needed that are shown here are correct. The amounts shown here which could be taken and put into the system over a period of time for the contract is greater than what is actually needed as the amount of gas is less than was contemplated in one of our deliverability schedules.

Now, in the contracts from the Princess and the Many Islands Fields, each one is for the first year $7\frac{1}{2}$ per cent of the throughput of the main line, or we estimate at 10 million per day; for the second year, $9\frac{1}{2}$ per cent or 17 million per day; for the third year 15 per cent or 33 million per day, and the fourth year, 25 million per day on the average for each one. Now, that gives 25 million per day and if we run that through for the 25 years it gives 228 billion cubic feet, which is only half of the reserves. It is obvious that the sellers of the gas will not have too great a difficulty to meet their contract

A. F. Dixon,
Dir. Ex. by Mr. Nolan.

- 1964 -

because they will only at the end of the period have used about half their gas. Of course, all of these contracts, as we know, are subject to scrutiny and have to be passed by both the Board here and the Utilities Commission.

Q So that as far as the Canadian Gulf Oil Company is concerned, as I understand it, they are in a position to meet your requirements, too?

A Yes. They have informed me that they are ready to spend the \$40,000,000 or so that is necessary for them to meet the requirements of this line.

MR. NOLAN: This would be a convenient moment for me to adjourn, Mr. Chairman, if it is convenient to the Board.

(The Hearing was then adjourned until 9:30 A.M.,
Tuesday, November 20th, 1951.)

The Province of Alberta

PETROLEUM AND NATURAL GAS CONSERVATION BOARD

Application for Permission to Remove or cause to be removed
Natural Gas from the Province of Alberta, under the Provisions of the
Gas Resources Preservation Act by Western Pipe Lines.

I. N. McKinnon Esq., Chairman

D. P. Goodall Esq.

Dr. G. W. Govier

Session:

Volume_____

